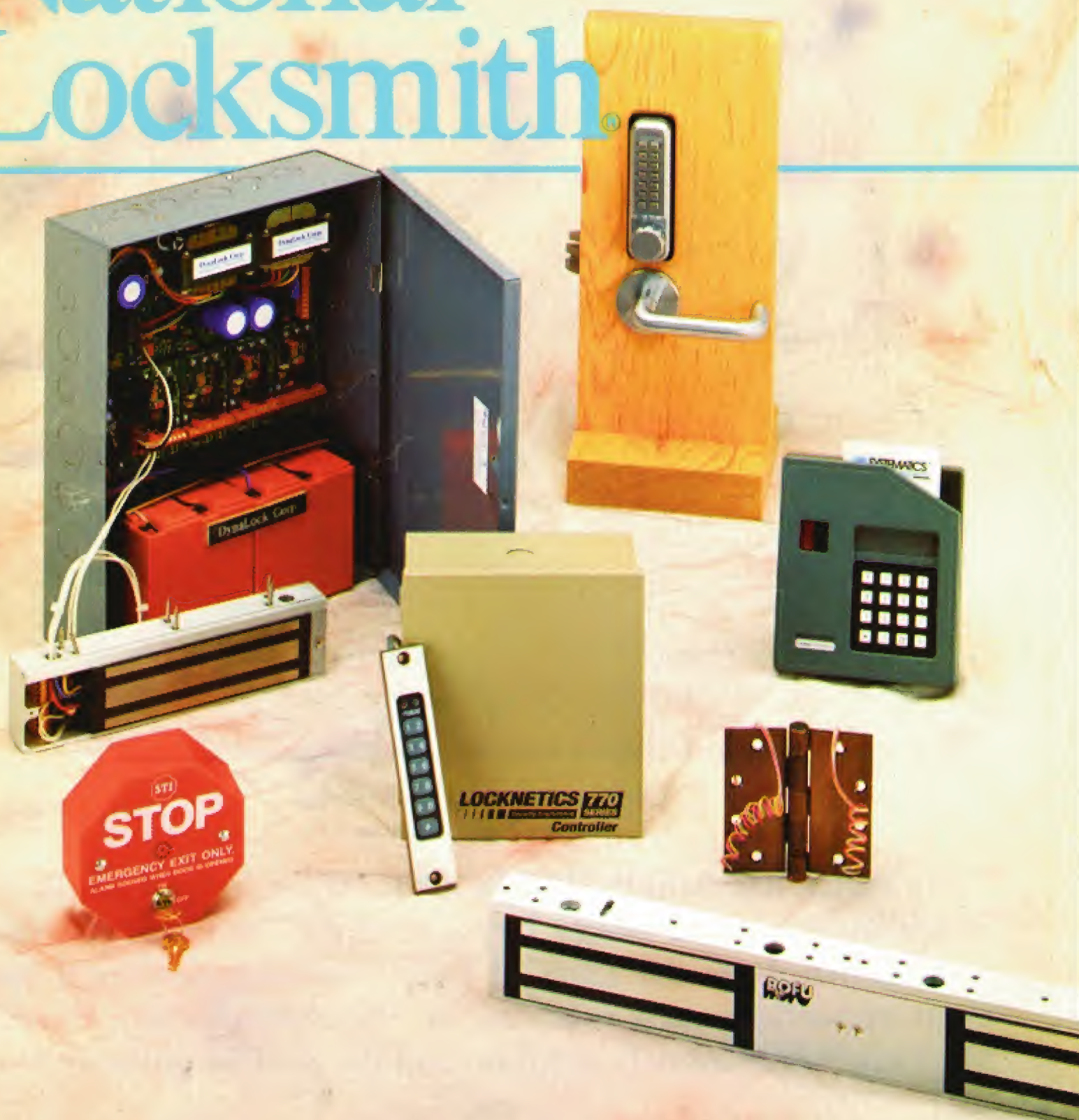


June 1992

The National Locksmith



Access Control Issue!

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Access Control Issue!

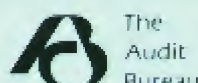
On The Cover

Products from the following companies are featured: DynaLock Corporation; Door Systems Inc.; Cardkey Systematics; Architectural Control Systems; Rotu International; Safety Technology International; and Locknetics Security Engineering. Information is available free of charge about all products advertised in this issue and featured in the product review section - just use our Rapid Reply System.

Departments

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Commentary

Beware TV News Stings!

Well, as you can see, we have given you a new typeface to enjoy while reading *The National Locksmith*. Some readers complained to us that the previous font was difficult to read, thus the change. I believe that your favorite locksmith magazine now has a comfortable look you will enjoy for many issues to come.

In my very first Commentary, written back in 1983, I recall saying that *The National Locksmith* is *your* magazine. I invited all our readers at that time to stay in close touch with their magazine by calling us when needed, and by writing us letters to the editor. At this time, I want to repeat that statement.

The National Locksmith truly is *your* magazine. Ours is a magazine written *by* locksmiths, *for* locksmiths. We want to hear from you when you have something upon which you'd like to comment. I do read each and every letter to the editor which comes to this magazine. I can't promise to agree with every letter we receive. But I believe the Letters to the Editor column is the place for locksmiths to express their opinions whether I share those thoughts or not.

Editing an important publication like this magazine is a real privilege and an honor. I want to thank you for taking the trouble to subscribe and for dedicating the time to read our words. We stand for better locksmithing, and we'll appreciate any suggestions you may make to help us achieve that goal.

In the past, we have warned you about local TV news crews conducting "sting" operations against locksmiths. The sting works like this. With a hidden camera in place, the news team calls locksmith after locksmith out to a parking lot, asking them to open a locked vehicle. They keep filming until one or more locksmith opens that vehicle without requesting identification from the customer. That night those locksmiths find their faces on the evening news as examples of how locksmiths do not always practice good security.

These stings have been going on now for well over a year, and have occurred in various parts of the country. It just goes to show how little originality there is in local news programming. Once some station in Omaha gets a

"brilliant" idea like this one, next thing you know stations all over the country get busy trying to copy the idea for ratings in their own city.

As part of our earlier comments on this topic, we advised you to request identification from the customer before handling a lockout. However, as we all know, sometimes requiring ID can be a problem. First, no one carries the title to their vehicle on them. So the most you can normally request is to see the customer's drivers license. However, as any locksmith knows, at least half of the time that license is locked in the car along with the keys. Or sometimes the customer has no ID on them at all.

Does this mean that we should leave the customer stranded, perhaps in a dangerous part of town, maybe even in the middle of the night? No, I think not. We still advise you request identification, and record the customer's drivers license number as well as make and model of car with the license plate number. If you have reason to be suspicious, you might want to check with the police to verify whether the plate number had been reported stolen before you open the car.

I mention this subject because I have been contacted recently by Chicago's Channel Five News. They asked me to comment on this situation. I intend to use the opportunity to defend the locksmith and to present the locksmith's point of view. I think the news is looking for cheap ratings at your expense. But you can, and should, take precautions.



Marc Goldberg
Editor/Publisher

June 1992 5

Letters

Comments, Suggestions and Criticisms

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and length. Please address your comments, praise, or criticism to Editor, The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107. All letters to the editor must be signed.

Mention of A.D.A. Law Applauded

Dear Marc:

My congratulations in your January 1992 issue for bringing forth the A.D.A. law which will affect all of us in the lock industry.

I look forward to your follow up articles as whatever help you and other publications can do in bringing the lock industry "up to speed" would be most helpful.

You were correct. This is an absolutely fantastic opportunity for all of us in the lock industry providing that we learn how to take advantage of it and like everything else, it has to be brought forward and learned how to be handled so it can be profitable to all of us.

Bob Roy
Roy Associates
Sterling, Massachusetts

How To Deal With The Police Department

Dear Marc:

I just completed a section in your magazine pertaining to car opening and ways of verifying ownership. The problems and methods were very interesting. However, in my area we just elected a new sheriff, so as any dedicated locksmith concerned with and attempting to enforce security which is part of our job as professionals, I went in and visited with him, advised him of the services I performed, as well as the possible damages which could occur when an unskilled person attempted this community service, as it is called in my area.

I also advised him that his officers could be held responsible to pay for these damages as the preceding administration had to do. I also advised him of customer complaints of jabbing with a Slim Jim which had been brought to my attention by his officers.

Now dispatch calls the closest locksmith to perform this service. I must say since GM, GEO, Chrysler, Eagle and now Ford have started giving away a set of the plastic keys with each new vehicle, lock openings have declined. Also, GM has established an 800 number for 24 hour customer assistance. GM also verifies ownership by asking such questions as owners' name, address,

Vehicle I.D. #, Dealer purchased from and O/L or SSN# to insure the person owns that car or truck, 1988 and up. GM then calls the dealership with the customer present at the dealer or participating locksmith, who has the job of cutting the key and collecting verification of alleged owner present daytime and after hours.

As for collecting for service calls after the person calling has left, I suggest attaining all information like above and remit a statement for that service.

Willie Bowen
Gate City, Virginia

A Beginner Asks A Pricing Question

Dear Marc:

I am currently enrolled in a locksmithing course. I need to know an answer to a question that I am sure that other beginners in this trade have a problem with too.

First of all, the course has taught me to never undercut other locksmiths and I agree with this. It seems like when my friends and relatives found out that I can do this type of work, everyone needs something done. But when I quote them a price, they all turn against me saying that I'm too expensive. I did call around first to other locksmiths to see what they charge, and this is how

Continued on page 8



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Continued from page 6

I determined my prices.

How would you handle this?

Eugene C. Pickering
Cleveland, Ohio

Editor's Note: Even doctors sometimes give their family a discount, so I don't see why you can't do the same if you want to. However, you are smart not to just try and be the "cheapest" locksmith in town. Instead, concentrate on being the best!

Problems With Establishing An ALOA Chapter

Dear Marc:

For some time now, I have been attempting to bring together local locksmiths to set up a chapter under ALOA sponsorship. I've been informed that 20 members are required to establish a chapter. I've approached quite a few shops where the ALOA membership certificate is prominently displayed, and have been told that, "We aren't interested," or "I have no time to attend meetings." The nearest ALOA chapter is a good 45 miles from my home and much farther for certain prospective members.

Could the situation be, "We have met the enemy and they is us?" Where will indifference lead to?

Dotson Angell
Clarklake, Michigan

Editor's Note: Anyone interested in helping to get another chapter started in Michigan can contact Dotson Angell at 8426 S. Jackson Rd., Clarklake, MI 49234

Locksmith Searches For Stolen Sign

Dear Marc:

I am writing this letter to all my colleagues in the locksmith industry to enlist their help in a somewhat unique situation.

Several months ago a sign was stolen from the entrance to my shop in West Chester. (Southeastern Pennsylvania) I don't suspect any of my fellow locksmiths were the perpetrators as it is a college town and such things often disappear for a "trophy" room somewhere on campus. I do think however that a seven foot by nine inch wide tan sign saying "LOCKSMITH" vertically in eight inch green letters, would be a hard thing to miss, especially by a locksmith. The sign is one of a matched set I had made a decade ago.

If you have seen this sign I would greatly like to recover it. I would

gladly pay any shipping or other costs incurred in the sign's recovery. In our business we encounter crime on a daily basis; not too often do we get to help the victim in the recovery of their property though. Thank you for keeping your eyes and ears open.

Keith Smith

West Chester, Pennsylvania

Editor's Note: Anyone with information can contact this magazine.

East Tennessee Association Thanks Magazine

Dear Marc:

The Board of the East Tennessee Locksmith Association would like to thank you and your company for the contribution to our annual banquet which was held February 8th of this year. Our association benefitted greatly from the literature that was sent. Each individual company was brought to the attention of our membership for their contribution and efforts as well as promoting that particular company's product line.

Thank you again for making everyone's evening a great success.

The East Tennessee Locksmith
Association Board of Directors
Johnson City, Tennessee



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Technitips

Helpful Hints from Fellow Locksmiths



Send me your Technitips. Who knows, you may be our next winner! c/o The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107

by Robert Sieveking

When you judge the value of a "service," the quality of the service will determine the value. Poor quality service is what could destroy the locksmith, and ultimately the locksmith industry. What do you give your customer, that the giant can't or won't? How does your customer see you? As a professional, or a handy man? I started locksmithing at a time when most of the local locksmiths were sending the "foreign car work" to the dealers, because they viewed it as not profitable enough for their efforts. I used the foreign auto work to get into established accounts of the competition. Of course, I also worked and studied everything I could find on foreign auto servicing. Out class the competition to win. Offer more and better service for

the same money.

Though some will say that car opening is too low tech for their efforts, you better believe that I jump at the opportunity to go open a car. That's profitable business for this little shop, and you can bet it's profitable for them too. Never turn down business that is profitable.

Last of all, lets not be greedy. If we try to legislate ourselves into a position

of limited competition, or restricted license and most of all controlled existence, we will ultimately kill the goose that lays the golden eggs.

Low profile professionalism, and not high ticket customer awareness, laws, and controls will preserve the lot of the locksmith. When is the last time you saw a small "mom and pop" service station? How about a sandwich shop or "non-franchised" store? They have all

Continued on page 12

These Prizes Awarded Each Month!

All-Lock A-7000 VATS Decoder

HPC Pistolpick

Silca Rubberhead Keyblanks (100 blanks)

ESP PR-13 Professional Lock Pick Set

Sieveking Products EZ-Pull GM Wheel Puller

Submit your tip and win!

How To Enter

All you need to do to enter is submit a tip, covering any aspect of locksmithing to The National Locksmith. Certainly, you have a favorite way of doing things that you'd like to share with other locksmiths. Why not write it down and submit it to: Robert Sieveking, Technitips' Editor, The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107.

Tips submitted to other industry publications will **not be eligible!** So get busy and send in your tips today. You may win cash merchandise, or even one of many key machines or code book sets! At the end of the year, we choose the winners of the listed prizes.

Last year dozens of people walked off with money and prizes. Wouldn't you like to be one of the prize winners for 1992? Enter today! It's a lot easier than you think!

Every Tip Wins 'Locksmith Bucks!'

Yes, every tip published wins a prize. But remember, you must submit your tip to *The National Locksmith* exclusively. Each and every tip published in Technitips wins you \$25.00 in Locksmith Bucks! Use this spendable cash toward the purchase of any books or merchandise from *The National Locksmith*. You also receive a Bonded Locksmith bumper sticker and decal. Plus you are now eligible for the really big prizes!

Best Tip of the month prizes!

If your tip is chosen as the best tip of the month, you will win \$50.00 in cash as well as \$35.00 in Locksmith Bucks! Plus you will receive a quartz Locksmith watch, a Bonded Locksmith bumper sticker, decal and a Locksmith Cap. Plus, you may win one of the annual prizes.

Continued from page 10

but ceased to exist, through unfair competition and legislative controls. Instead of erecting hurdles for the new locksmith to pass, before he is permitted to compete fairly, is good. The low overhead operation can create competition that no giant can meet. That's why the locksmith industry has lasted as long as it has. A few good men, just getting on with business. (Oh, and a few good women too.) Compete and prosper.

June's Best Tip

This Technitip concerns opening and making keys for the new Mazda RX7. I was called out recently, to make keys for this auto, and found a few interesting points, that I'm sure you will enjoy.

The new RX7 resembles the Dodge Stealth in appearance, with wide curved doors. The outside handle and lock cylinder, however resemble the Beretta.

The inside lock button appears as

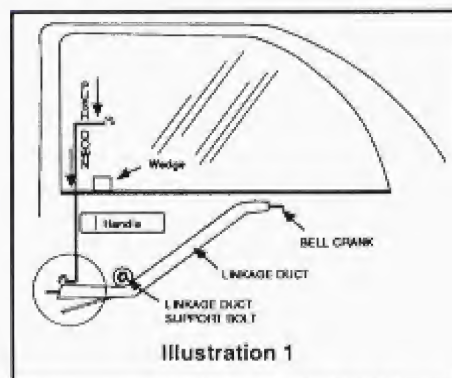
if it would have a horizontal linkage. It, in fact, has no linkage. It uses a wire cable release, that you would commonly find on a trunk or gas door latch. If you wedge the door, follow the outside handle assembly straight down the linkage approximately 12", you will see that the vertical rod that goes from the lock pawl to the lock case. The latch box is surrounded by a white plastic box which protects it from most tools. A 1/2" hole in the top of the plastic box allows the linkage to enter the latch box. Insert a straight rod approximately 18" in length and with a slight bend at the tip, into the hole in the plastic box. Push down gently, as the pawl is free, and will allow the door to be unlocked with very little pressure. Use a flex light and wedge to locate the access hole. It is very easy to locate under those conditions.

With the car opened, you will see a black plastic cover over the inside of the handle assembly. Gently pry it free. You will then see two 10mm nuts securing the handle to the door assembly. Remove the nuts and slip the handle out of its mounting. Look at the back of the lock pawl, and you will see the code. The key blank is X201. The code series is 10100 to 12099. Make the key by code, check for proper operation in the various locks of the car, and reassemble the door. This new design certainly eliminates a lot of trim removal.

Tom Tussing
Florida

All-Lock VATS Decoder Winner

This Technitip concerns a simplified method of opening the '92 Toyota Previa. Wedge the glass at the rear of the passenger door, as shown in illustration one, and insert the small end of a "Z" type opening tool. Lower the tool into the door, to contact the



Continued on page 14

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Continued from page 12

linkage duct, to the rear of the linkage duct support bolt. The bolt is through a plastic tab on the duct. If you will press downward "on the duct" gently, the door will unlock.

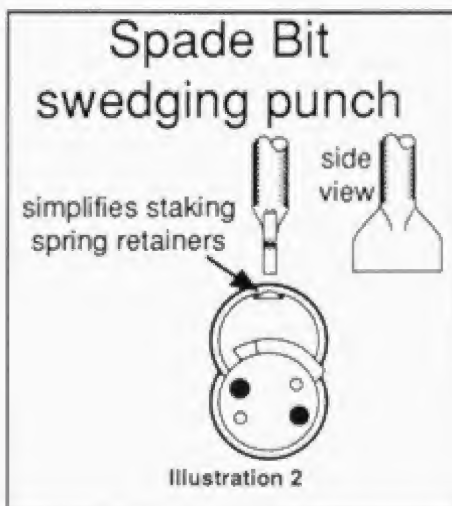
Note that the tool is at the rear of the duct, and away from the support bolt. This tip is a real beauty.

Raymond Wroblewski &
Jeff MacInnis
Oregon

Silca Keyblanks Winner

If you have done much removable core work, you will appreciate this Technitip; especially if you work with Falcon removable cores. There is nothing more frustrating than trying to stake the spring retainers in place on the core.

To solve this problem, I have made a nifty swedging punch from a spade bit. The bit was ground straight, as you see in illustration two. We chuck the bit (punch) in the drill press and, holding the core in a cylinder vise, use the drill press as an arbor press, to swedge the spring retainer into the dovetail groove of the lock cylinder. The punch easily "forms" the retainer perfectly flat and tight, over its length,



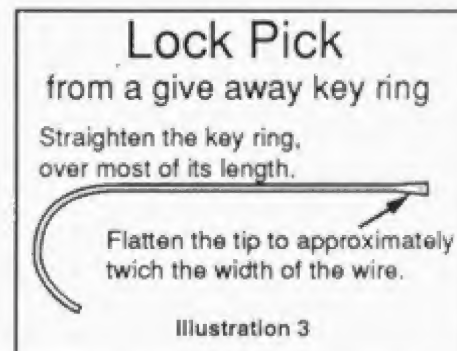
without twisting or deforming it.

To make a handy core holding fixture, you can saw the top off of a removable core rim or mortise cylinder. Square the round cylinder body, to fit your drill press vise.

Mark Selvidge
Georgia

ESP Pickset Winner

I recently had occasion to pick one of the new Master/Dexter entry locksets. After a little study of the construction of the lock, I came up



with a simple tool, made from a "give away key ring," that opens the lock.

Using a key ring, straighten most of its length and flatten the long end as you see in illustration three. Insert the tool into the center of the keyway, passing through the plug to the rear of the cylinder. Using light pressure, turn the tool clockwise to unlock the lockset. The tool passes out the rear of the plug, and engages the locking actuator, inside the stop washer. Be careful not to push the flat tip too far into the lock. The actuator is just at the rear of the plug.

John Spyres
Oklahoma



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HPC Pistol Pick Winner

I would like to submit the following Technitip to your Technitips column.

I was recently called to rekey 6 Dexter/Master keylocks and deadbolts. When I removed the cylinders from the knobs, I discovered that the plugs were tapered, and I had no follower that would fit over the irregular shape of the plug.

Rather than pulling the plug and letting the upper pins fall, creating more work for myself, I tried to find a way to make the plug follower I had work. I had a plug follower of the correct diameter, but it was not

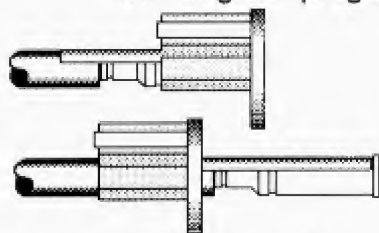
hollow, to fit over the long tapered end of the plug.

Using the customer's key, I turned the plug ninety degrees, and inserted a curved shim, between plug and the upper pins, as you see in illustration four. Then, using my regular follower, I followed the plug out of the cylinder. The shim acted as a bridge, to carry up the top pins, as the follower pushed the plug out the front of the cylinder. I reversed the procedure, after rekeying the cylinder, to get the plug back into the cylinder without dropping the top pins.

This would also have worked, if the cylinder had been picked. The cylinder of the new Master keylocks has to be turned 180 degrees, to be removed from the knob.

Bob Adams
Indiana

Having trouble "following"
an irregular plug?



Use a piece of curved shim
stock to bridge the gap.

Illustration 4



5. Sentry safe in need of drilling.

Remove the set screw and handle from the face of the safe. The plastic face shield and dial cover are attached to the face of the door by double faced tape. Gently peel the face plate from the door, taking care to not damage it. It will be used again. A screw, under the center trim piece of the dial, attaches the dial to the spindle shaft. Carefully remove the plastic trim piece from the dial and remove the attachment screw.

The dial should come off the spindle rather easily, and without



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breakage at this point. Drill the door at 9:00 o'clock, 1" from dial center. The fence and gates will be visible in the hole. Dial the safe open from this direct read point.

The sheet metal door can be welded to repair the hole, and the dial, trim, and face plate replaced. No parts will be required, if a little care is used in the removal of the trim parts.

Larry Wright
South Carolina

Everyone is looking for a new profit center in their shop. One that will provide a unique service for your customer, and at the same time make a good profit for the shop. We recently began fabricating custom security cables. By purchasing vinyl coated aircraft cable in bulk, and having a crimping/swaging tool, cutter, and ferrules, you can easily assemble custom cable for almost any application. Besides providing cables for bicycles and garden equipment, and retail garment displays. The cable diameter can be chosen by the customer, to suit his need and the amount of security required. The cost of the materials will vary according to

the supplier and the quantity. My Technitip is to compete by offering more service to your customers. Custom security cables are a very saleable item, if you can make them to order.

The following is a list of wholesale sources for tools and materials:

Cooper Tools/Covert, PO Box 728, Lufkin Rd., Apex, NC 27502, (919) 362-7510; Door Products Inc., 1480 E. Industrial Dr., Itasca, IL 60143, (708) 773-0583; Fehr Bros. Ind. Inc., 5101 Kings Hwy., Saugerties, NY 12477, (800) 431-3095; Koch Ind. Inc., 5871 Cedar Lane Rd., Minneapolis, MN 55416, (800) 428-8282; Nat'l Telephone Supply, 5100 Superior Ave., Cleveland, OH 44103, (216) 361-0221; S & F Tool Co., 18437 Mt. Langley St., Bldg. P, Fountain Valley, CA 92708, (714) 968-7378; Serv-a-lite Prod. Inc., 3451 Morton Dr., E. Moline, IL 61244, (800) 447-6760.

Peter Schifferli
New York

This Technitip concerns a problem that has annoyed me for some time. Many times, while working on the electronics of a Ford products door, alarm system, or ignition kill switch, it

is necessary to have the door ajar, while the key is in the ignition. The annoyance comes from the key alarm. The buzzer, chime, or recorded voice will continue to remind you that you have left the key in the ignition, until you find yourself pulling fuses and clipping away wildly at the wires under the dash, in a frenzied attempt to silence that infernal buzzer. If you find the clever place where it is hidden, you can simply unplug the thing. But, this too has its consequences. Some buzzers are cleverly wired into the electrical system, in such a way as to disable some unrelated system when removed.

My solution is much simpler than any I have seen. Duplicate the customer's key onto one side of a blank. Use a round file to modify the uncut side of the new key, to bypass the buzzer actuator in the Ford ignition. This modification eliminates the key in the ignition alarm without the usual Easter egg hunt. Save all that aggravation for half the cost of a blank. Such a deal! The key can be recut on the opposite side for the next customer's Ford.

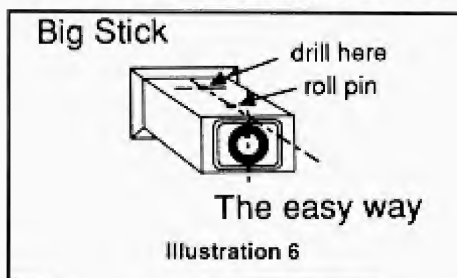
Keith S. Smith
Pennsylvania



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This Technitip involves opening the steering wheel lock, known as the Big Stick. When a person loses their keys, it is not always practical to make keys to all their toys. Unique, foreign, and "cannot duplicate" keys many times make a lock or device impractical to service. The primary request is to remove the lock, so the car can be moved. Illustration six shows the lock



cylinder arrangement of the Big Stick. To neutralize this device, use a battery powered drill to drill a small hole, in line with the center of the lock cylinder, 1/8" from the body of the stick. Drill only through the skin of the lock housing. Then push the cylinder spring bolt down with the tip of the drill. The lock cylinder will pop out, allowing the Stick to be removed from the steering

wheel.

Mike Harrison
Connecticut

Here is a little Technitip that I know you will find handy, the next time you rekey the rim cylinder on a garage door or emergency exit device. Many times I find that the actuator has been cut very nearly too short. Getting the actuator to engage the lock, as the lock is assembled to the door can be frustrating and time consuming.

To simplify and speed the job, push a short piece of plastic drinking straw over the actuator. The extension of the actuator can then be flattened and started into the lock. The actuator will follow up the straw, into the actuator cam hole of the lockset. This Technitip can also be used to tighten the cylinder actuator in the lock cam, as the plastic material effectively increases the thickness of the cylinder tailpiece. Good luck, and thanks for a great column.

Henry R. Braun
Texas

I have two short Technitips that you

may find useful.

The first, concerns tightening the spring retainer on the Kwikset and similar "loose cap" type spring retainers. They are designed to snap off and on, but with each off and on cycle, the "on" becomes less and less secure. To prevent an unexpected "off" condition, I use my GM de-capping pliers to crimp the cover in place. This tightens the spring retainer onto the cylinder, and insures that it will stay on.

Recently I had the opportunity to make a key for a Ford 10 wafer ignition. To remove the ignition, it is necessary to have the ignition in the on position. Purely by accident, I used a set of rocker picks designed to fit the 1966 to 84 pin tumbler ignitions. To my surprise, the old series rocker picks solved the ignition, allowing me to remove it for service.

I have since used these picks interchangeably with the newer Ford rocker picks. My Technitip is to give the old series pin tumbler rocker picks a try, when attempting to pick the new Ford sidebar ignitions. They can work as well as the newer set.

Terry Luther
South Carolina

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Newsmakers

New Products and Industry News

Ideeuz Announces Invader Tool

Ideeuz International announces the availability of the slim line Invader, designed by Romaco Inc. to gain easy entry into the new Japanese models as well as domestic units.



The Invader can be purchased by itself or with a double ended wedge. Use of the Invader eliminates the need to remove any moldings, as is necessary with other thicker units.

The Invader is a companion to Romaco's patented Wonder Tool.

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Don-Jo Changes Latch Protector Design

Don-Jo Mfg. is pleased to announce a change in the design of its popular LP-211 series latch protectors. The cut out for the knob has been increased to accept up to a 3-1/2" rose, commonly found on heavy duty key-in-levers. This enlarged cut out will allow you to meet almost any application with one product.

The company will continue to pack all LP-211's with four carriage bolts, washers and cap nuts to give you the strongest installation to help prevent illegal entry.

There will be no price or number change on the new design LP-211's.



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Circle 349 on Rapid Reply



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Borrough's Vehicle Anti-Theft System

Borroughs Tool and Equipment Corporation, is offering the Magic-Touch Anti-Theft system for automobiles.



According to Borroughs, the Magic-Touch features a lock-out switch which opens the starter circuit and dead-shorts it to ground. The operator simply presses the hidden tape switch before turning on the ignition key. Nothing has to be done when leaving the car. Magic-Touch

uses no power from the auto battery. Even if the battery is removed, Magic-Touch still maintains the starter circuit dead shorted to ground.

For FREE Information
Circle 438 on Rapid Reply

NT Falcon Lock's Cap and Cover Options

NT Falcon Lock introduces its new interchangeable cores.

The new concept allows users the option of capping instead of covering when closing. Each pin chamber can now be capped individually or the chambers can be covered as a group, an exclusive feature of NT Falcon Lock.

NT Falcon Lock also announces it has added the "K" and "L" keyways to its line of interchangeable cores.



For FREE Information
Circle 439 on Rapid Reply

New Cutters By Gil-Ray Tools®

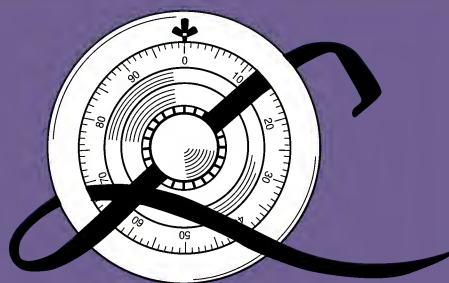
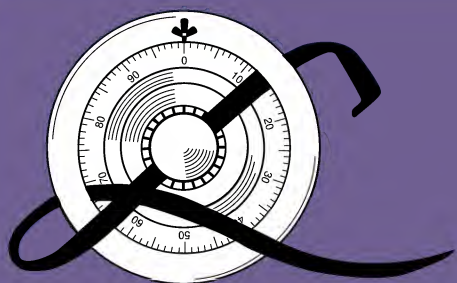
Gil-Ray Tools Inc. manufactures a full line of replacement key machine cutter wheels for all popular machines. Gil-Ray sells direct to locksmiths.

Gil-Ray precision cutters are found on many new key machines as OEM parts. All Gil-Ray cutters are American made in their Bay City, Michigan facility.

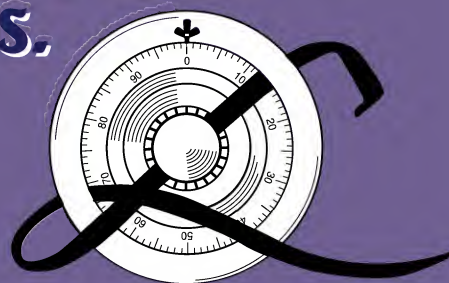
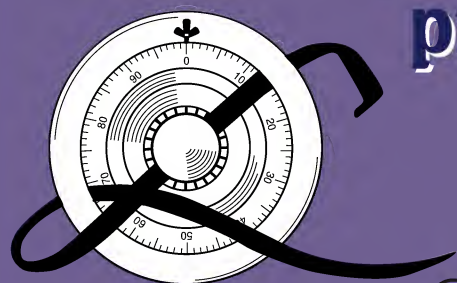
Gil-Ray has also operated a mail-in key cutter sharpening service for 47 years.



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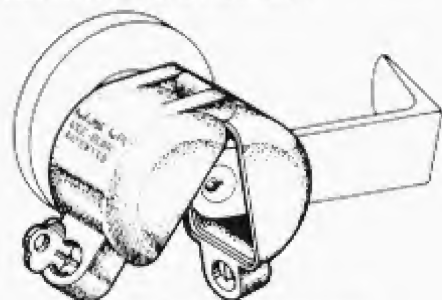


[Click here for more information](#)

Major Manufacturing's New Kee-Block

A new model Kee-Block has been introduced by Major Manufacturing for use on lever handle locks required by state and national fire and Handicap codes. The LA-100 will fit Schlage Oly, Schlage Rhodes, Arrow Sierra, Falcon DG, Sargent LN and other popular models, locking out existing keys.

Available keyed different or keyed alike from your distributor.



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Alarm-Saf's Power Support Systems

Alarm-Saf Inc. introduces their new Power Support Systems family of power supply battery chargers. These commercial power support systems



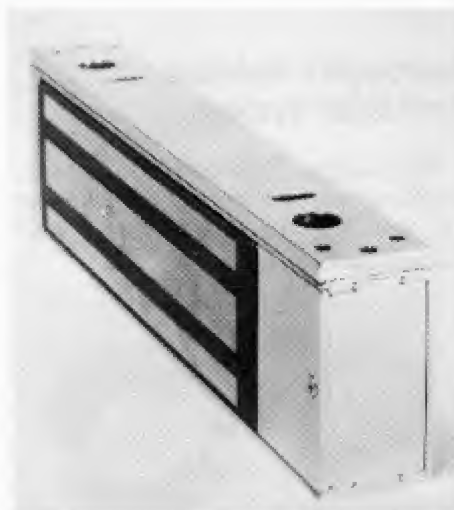
combine a filtered and regulated power supply battery charger in a vented locking cabinet for uninterruptible backup or primary power.

Power distributed systems are available in capacities of 4, 8, 12, and 16 amperes. Compatibility with all lead-acid rechargeable or gelled electrolyte batteries assures reliable cost effective backup power.

For FREE Information
Circle 442 on Rapid Reply

Von Duprin Introduces Electromagnetic Lock

Von Duprin, Inc. announces the introduction of a new electromagnetic lock design that provides direct-holding forces of 1800 pounds in a package that combines a broad range of aesthetic and mechanical advantages. It is the only magnetic lock available with UL listings for

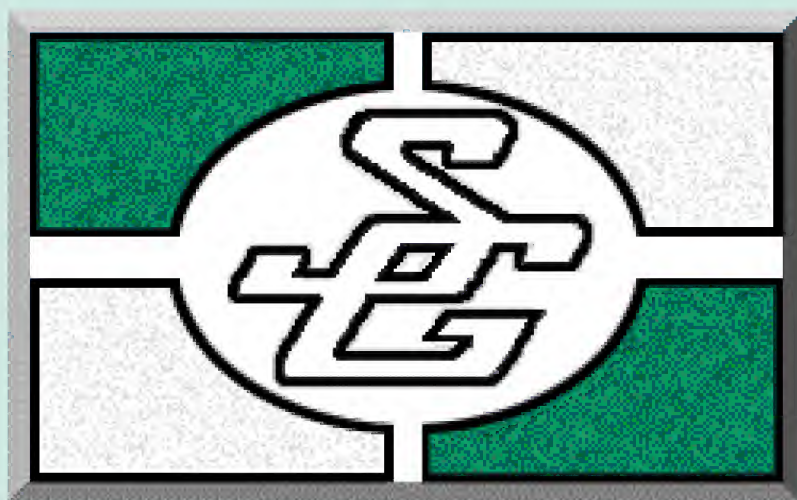


burglary resistance, releasing device and auxiliary lock for fire doors.

Designated the Max Hold® Series 4000 Series, the new direct-hold lock design incorporates dual-coil technology to allow easy field configuration for 12- or 24-volt operation. A unique dovetail construction eliminates external mounting screws for better security and appearance, while also extending service life and simplifying assembly.

For FREE Information
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Continued on page 22



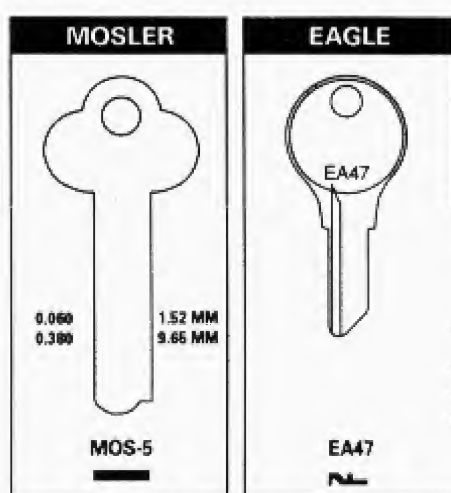
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Continued from page 20

Jet Hardware Releases A Catalog Supplement

Jet Hardware is pleased to announce the release of catalog supplement 191.14 which presents the following keys: MOS-5 for Mosler safe deposit (Ilco 1323); EA47 for Eagle 0754/Lori (Ilco 010145); 4227 for Yale GST Master 6 Pin (Ilco 998GST); HL1-M for imported mail box locks; 057B2-6-NP for Corbin 6 pin (Ilco R100ED); and PU1 for Pundra (Ilco 1866-13).



For FREE Information
Circle 444 on Rapid Reply

Corkey Control Systems' Xtronic 2000

The Xtronic 2000 card system is able to change its own code with each new card insertion. It is the first locking device to accomplish a sequential code change without batteries, electronics, wiring, or main frame intelligence.

The Xtronic 2000 is totally self-contained and can be easily installed to replace existing cylindrical locksets.



For FREE Information
Circle 445 on Rapid Reply

MSC Develops SecureKey Management

Management Systems Corporation (MSC), developers of Jagware Facility Management Software, announce the release of SecureKey™. The program is

a state-of-the-art computerized key and lock management system that provides instant access to key and lock records. It quickly shows the relationship of specific keys, keyholders and door/lock core numbers. SecureKey's™ pull-down menus and on-screen help prompts make operation easy, even for the novice computer operator.

For FREE Information
Circle 446 on Rapid Reply

Detex Announces New ThriftLock™

Detex Corporation announces the introduction of the new ECL-8015 Thriftlock paddle bar relatching exit control lock. Affordable, dependable and rugged, the ECL-8015 provides protection for emergency exits by preventing entry from the outside while announcing unauthorized use of the door with a high-decibel directional horn.



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Product Review...

AXYS Access Control

"AXYS is a single-door control unit designed especially for the locksmith and simple installation."

As locksmiths we can do two things when confronted with electronic access control. One, we can take a step back and complain about how the electronic field is stealing away customers, pretend it really isn't that big of a deal and will go away, and continue to lose money to electricians and alarm installers because "real locksmiths don't do electric access control."

Or, two, accept that electronic control is here to stay and is proliferating at a staggering rate, learn as much about it as possible, and grab that share of the market that might normally go to an electrician or alarm installer.

Actually, when it comes to controlling access (and in some cases egress) the locksmith is much more prepared to handle the small details often overlooked by the electrician and alarm installer.

For example, the reason this writer even started working with access control units was because the sales representatives of an international manufacturer and installer of card access units needed somebody that could not only install an electric strike/lock, but who could also help them identify what other door hardware was necessary to make their system work. This often included changing the door lock function to storeroom so the lock could not be left unlocked, adding a latch guard to protect the latch, and installing a door closer to close the door.

These are natural to a locksmith, but a whole new world to electricians and alarm installers. Unfortunately, locksmiths have had to be dragged screaming and yelling into the electric access field; a field that, except for the use of electricity, should be as familiar to him as the name Schlage or Kwikset. In fact, it has been only

within the last five years that the trade has focused itself on training in this field. And within this time many new products have been introduced to help locksmiths with the transition. AXYS (pronounced "access") by DTS Technology, Inc. is just such a product.

According to the manufacturer, AXYS is a single-door control unit designed specifically for the locksmith. It requires a relatively simple installation, three electrical connections and programming through the keypad. Most of the "bells and whistles" found on other systems have been left off.

According to the DTS representative, functions such as panic, duress, tamper and "audit trailing" have not been included because these functions are almost never used, and/or require the need for an alarm panel and/or printer in order to be used.

What is included, however, is a system that is fully programmed from the keypad, offers two user codes from one to ten digits each, has entry-times from .1 seconds to 100 hours of latching, allows the secondary user code to be deactivated temporarily, and a function that allows you to override the existing entry-time on a one time basis.

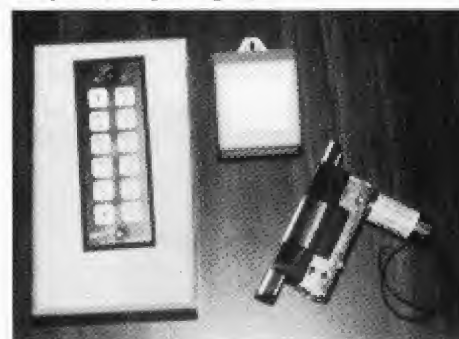
Another feature includes programming the electric strike's rating. If an intermittent strike is used, the maximum time that the lock can be activated is 30 seconds. This function is meant to protect the lock should the customer accidentally try to activate it for periods of time that may cause damage.

Probably the most interesting aspect of this particular system is its ability to be upgraded in the field. Should the demands and needs of your customer change, an upgrade kit is available to meet those needs. For

example, the particular system that is being installed in this article offers two user codes. Should the future needs of this customer demand more than two user codes, a kit can be purchased that allows the customer up to 120 users.

One problem with many systems in the past has been the need to purchase complimentary power supplies/transformers, rectifiers, cable and electric lock. AXYS has pretty much simplified this for the locksmith. Along with the system all that is needed is an electric strike/lock (12 to 24 volts, AC or DC, failsafe or failsecure), the transformer for the strike and 22 AWG (22 gauge) two conductor wire.

The control panel of the AXYS system will operate off of the strike's transformer and will provide either AC or DC current to your electric strike up to 1.5 amps. If more amperage is needed, the AXYS relay provides a dry contact rating of 10 amps. Use of this option is explained in the installation manual. But for most applications the AXYS output is ample. (See photograph 1.)

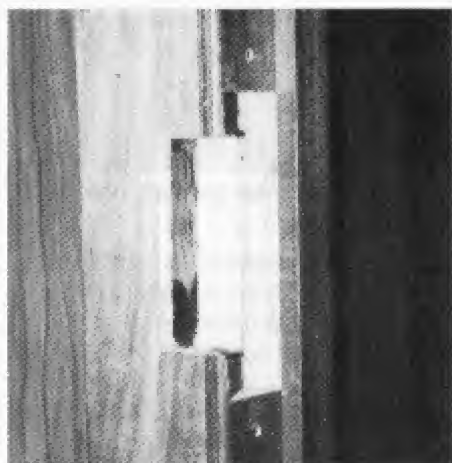


1. The AXYS keypad, control panel with transformer and electric strike.

The only extra tools needed were a pair of wire strippers/cutters, fish tape, and electrical crimp connectors. Although not always used, a good potentiometer is sometimes helpful.

To start, we installed the electric

strike per the manufacturer's instructions. This particular frame was made of hardwood and it took some time to remove the wood without splitting it. The initial cutting was made a little easier by using a router and template. (See photograph 2.)



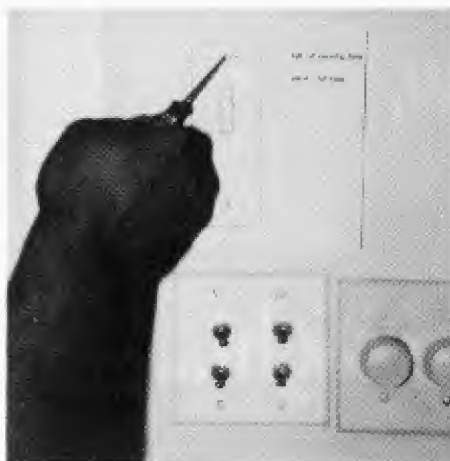
2. Preparing the frame for the electric strike.

Once cutting was finished we fished wire from the strike cutout to the point where the control panel was to be mounted. The strike was attached to the wire with crimp connectors and installed. (See photograph 3.)



3. Making electric strike connections.

Going just outside the door, we marked the wall for the keypad using a template. (See photograph 4.) After drilling the holes per the template we fished the keypad cable through the wall and up to the point where the control panel was to be mounted. (See photograph 5.) We then connected the cable to the keypad and mounted it to the wall. (See photograph 6.)



4. Using the keypad mounting template.

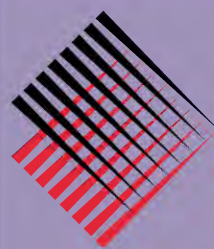


5. Pulling the cable with fish tape.

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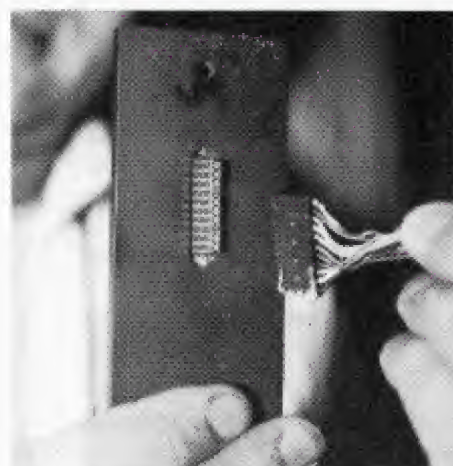
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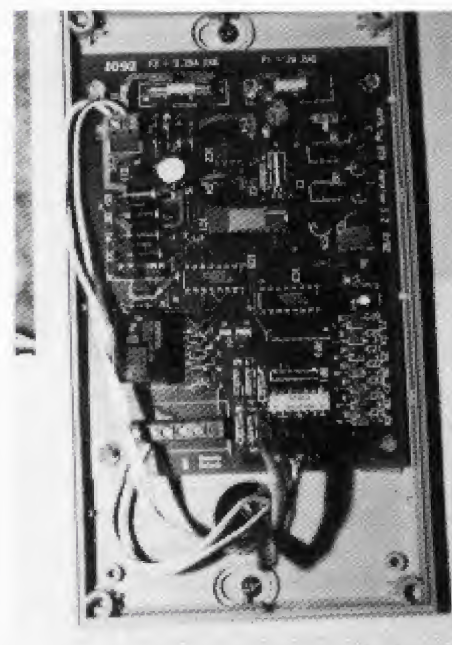
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6. The keypad connector can only be put on one way.

Using another template we marked out and drilled the required holes for mounting the control panel. Normally the control panel is mounted on the inside wall opposite of the keypad. The panel is slimline, made of white on gray plastic and blends into most decors. This particular customer, however, asked that the panel be concealed above the drop ceiling in his office. To accommodate these variations in installation AXYS is provided with a 15 foot keypad cable.

With the holes drilled, we pulled the wires through the back of the control panel and mounted it using two screws. It's here that AXYS separated itself from the rest of the single door access market. While most units provide terminal strips requiring the attachment of 12 or more wires, AXYS limited its connections to the transformer, the strike and plugging in the keypad cable. (See photograph 7.) (Should



7. Axys requires 3 simple connections.

Continued on page 28

Continued from page 26

your customer want a push button release under the counter or desk, an optional connection can be made for the button wires.)

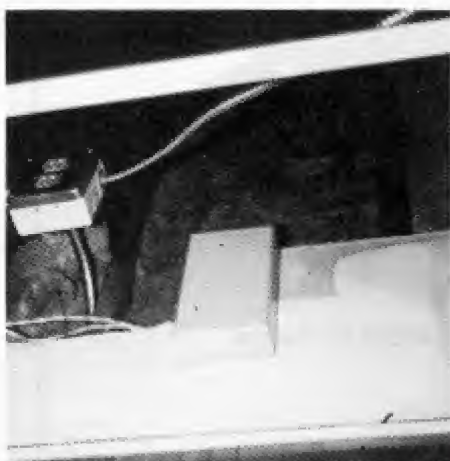
Also, at this time, we set the relay output for the electric strike. By moving two jumpers, we could set the output for AC or DC. A third jumper, if removed, allows use of the relay as a dry contact. We moved the jumpers to the DC output position.

With this complete, we put the cover on the panel and replaced the ceiling tiles. (See photograph 8.) The final part of the installation was attaching the transformer and

plugging it in. (See photograph 9.) The wire for the transformer was run down with the electric strike wire. By pulling back the door trim and baseboard, we ran the wire behind the trim and baseboard to the outlet and connected the transformer. (See photograph 10.)

The installation complete, we finished the job by programming the system. The programming was just as easy as the installation. The master code allowed access to the programming mode, where all the system functions are determined. (See photograph 11.)

For our particular application we set the strike duty feature for continuous. This allowed use of all the timing features. If we had used the



8. The control panel with cover on.



9. A plug in transformer makes the job easier for the learning locksmith.



10. The transformer wire was run along the wall behind the baseboard, behind the door frame trim and up to the control panel.

Continued on page 30



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Continued from page 28



11. Programming the AXYS system was as easy as the installation.

intermittent option, all timing would be limited to 30 seconds to protect the strike from unnecessary damage.

Next, we programmed the entry-time, or the amount of time we wanted the lock energized or open. Time from .1 second all the way up to 99 hours, 99 minutes and 99.9 seconds or latching are available. We only needed five seconds.

Then we programmed in the new master code and secondary user code. Each code could range from 1 to 10 digits, offering over 10 billion different codes. Because the keypad has an alpha/numeric display, passwords can be used instead of codes.

After exiting the program mode we were able to play around with some of the operating features of the unit. The first and most obvious, did it open the door for the programmed five seconds? It sure did, using either master or secondary code.

The next feature tested was the entry-time override. This allows the user to extend or override the programmed entry-time if he so desires. The override can be activated for times up to 99 hours and 99 minutes or latching. We set our override for 1 minute and 35 seconds. The system activated for the duration. Once off the unit returns to the

programmed entry-time.

The final feature was the secondary user override. When activated, the secondary user cannot operate the system. An example where this may be used is where access during weekends is limited to management. After activating the override, the managers are allowed access by using the master code, but the employees cannot. After the weekend is over, the secondary code is reactivated and the employees can enter using their code. This feature is nice because it means a customer doesn't have to continually reprogram the secondary code every time he wants it deactivated.

When we tried it, it worked!

Overall, the AXYS system is a good, simple system that is easy to install and versatile enough to meet many access needs. The advantage of offering field upgrade kits makes it even more desirable. For the locksmith it is a good start to access control installations. For the experienced access control installer it offers a versatile door control system at a very reasonable price.

For more information, contact DTS Technology, (800) 347-2316.

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by Tom Seroogy

Servicing Dodge Stealth

"The door panel was easily removed, but caution must be used as there are a couple of unusual features."

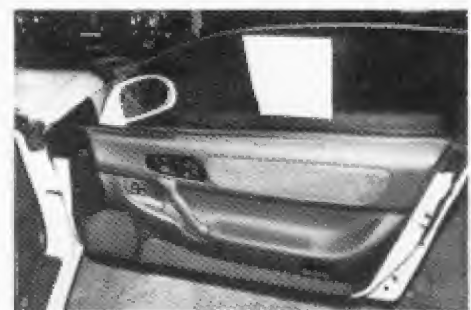
Despite its name and image, the Stealth (see photograph 1), Dodge's version of the Mitsubishi 3000GT, is a simple and predictable car to work on. This 1991 had automatic transmission, an airbag, used the "E" series Mitsubishi key codes and the Silca keyblank.

Getting into the car was simple, even for an apprentice. After wedging the window back near the handle, the inside lock linkage, rod, and bellcrank are all easily viewed and accessible. A variety of tools were used to push/pull and otherwise manipulate the locking mechanism. The lock itself has a fixed pawl and should not be used to open the door.



1. 1991 Dodge Stealth, by Mitsubishi.

Making a key was accomplished by getting the key code off of the passenger door lock. The door panel (see photograph 2) was easily removed, but caution must be taken as there are a couple of unusual features.



2. The door panel is held on by screws and two large hooks instead of clips.

To start, we removed all the visible screws, approximately seven. The trim around the door handle came off after removing one of these screws and then carefully pushing in and to the latch side of the door. Two plastic hooks held



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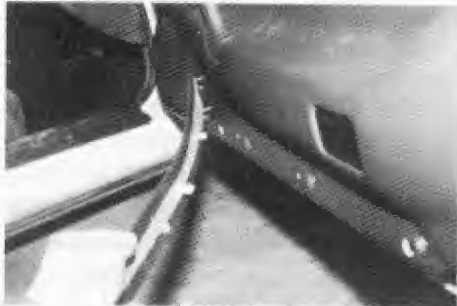
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3. After removing a screw, the handle trim must be pushed in and towards the latch side of the door for removal. Two delicate hooks hold it in place.

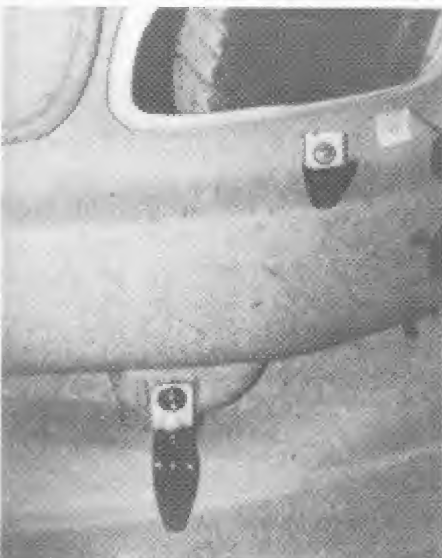
the trim piece on and could be broken easily if pried on. (See photograph 3.)

At the bottom of the panel there was a carpeted trim piece. After removing a screw at the outside of the piece, we carefully pried back pulling out two retaining clips. Then pulling out and towards the latch side of the door the piece came off. Removal of this piece exposed three more screws that were removed. (See photograph 4.)

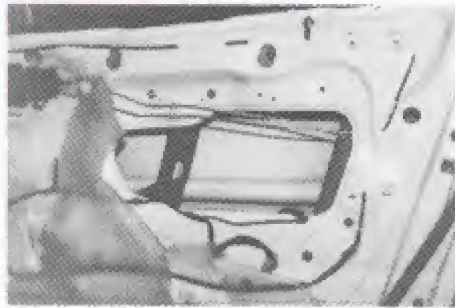


4. Removing the trim piece exposes 3 screws that must also be removed.

Now, to remove the door panel from the door it was necessary to lift straight up on the panel. The pull handle was attached to the door via large hooks. (See photograph 5.) After disconnecting two electrical plugs the panel was put



5. Remove all screws, lift the door straight and these hooks will slide out.



6. With the panel removed, there is ample access to the lock, latch, handle and linkage.

aside.

With the panel removed we had easy access to the lock and door handle. (See photograph 6.) While GM toots about being able to get your head into the glovebox of their pickup trucks, the Stealth offers even more room inside the door. Even large hands



7. A small access hole in the door shows the wire retainer around the lock and one of the door handle screws.

had enough room inside the door to work uncramped. Visibility was equally as good. This is an unusual circumstance and luxury with the advent of electronics being attached to locks and handles and the typical compactness of most doors.

Finally, to remove the lock, we



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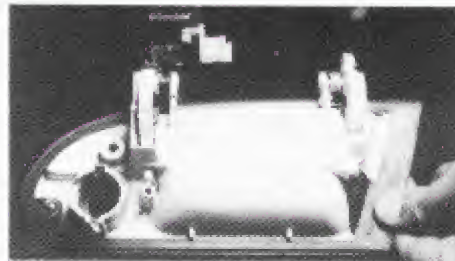
simply spread the wire retainer holding the lock into the handle and disconnected the linkage clip. (See photograph 7.) Should the handle itself need to be removed, by removing the screw located directly above the lock and another on the door edge, it easily tilted out. (See photograph 8.)

With the lock removed, the key code was easily seen on the side. If repairs are necessary, the facecap came off after prying up on two peened spots, leaving it reusable for lock reassembly.

Like the door, the ignition was equally easy to work on. Having an airbag, we first disconnected the negative battery cable and waited an hour

The hardest part of this whole process was prying the column shroud apart. After removing several screws and using a little elbow grease and finesse, the shroud parted and was removed. (See photograph 9.) The steering wheel and airbag did not have to be removed for this particular procedure.

With the shroud removed the ignition retaining pin is easily visible on the lock housing. A large harness going to the steering wheel passes over



8. After removing 2 screws and the linkage, the handle comes out. Notice the wire clip to hold the door handle.



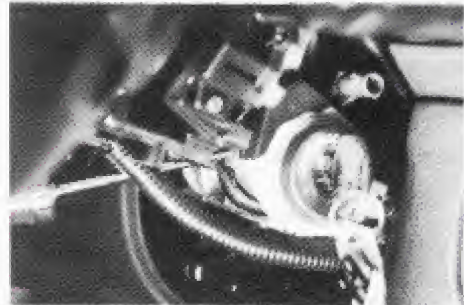
9. The ignition can be worked on without removing the steering wheel and the airbag.

the retainer site, but is little trouble working around. (See photograph 10.)

To remove the ignition the key was turned to the "Accessory" position. At this point the retainer could be depressed, and the lock removed from



10. The lock retaining button.



11. The lock can be removed after picking or turning the key to "Accessory" and depressing the lock retaining button.

the housing. (See photograph 11.) If a key is not available to turn the lock to "Accessory," and picking does not work, there is plenty of room to drill.

Once removed the lock was quickly disassembled. (See photograph 12.)

After removing a clip on the back

Continued on page 36



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Continued from page 34



12. Disassembled ignition lock & key.

and inserting the key the plug was removed. It is necessary to have a key to remove the plug. If a key is not available or does not work, shimming the plug or raking the tumblers while pushing the plug from the back will allow removal. At this time only factory locks are available, although the Auto Security Products A30-106 or A30-100 keying kits can be used for rekeying

the ignition.

The hardest part of the Stealth lock work was the trunk lock. With the hatch open, a number of screws were removed in order to pull back the trunk panel. This allowed access to the trunk lock retaining clip. (See photograph 13.)

But before the lock could be taken out, the whole rear light panel had to be removed. (See photograph 14.) This was accomplished by removing twelve 10mm bolts that held the light panels to the body. These bolts were easily accessible. The bolts for the end lights were found beneath small plastic doors found in the interior panel.

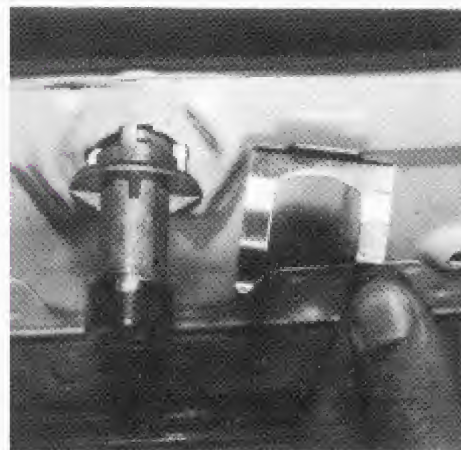


13. Removing the trunk panel to gain access to the trunk lock clip.



14. Removal of the light panels is necessary for removing trunk lock.

With the light panels removed, the lock was accessible, and after removing the retaining clip and disconnecting the linkage clip, the lock came out. (See photograph 15.)



15. Trunk lock and clip.

As with the door lock, service of this lock can be accomplished after removing the facecap, which is reusable, and the pawl. §

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Electronic

Locking Products

There is quite a variety available to the locksmith in terms of electronic locking products. Such devices as electronic strikes, access control systems, and electromagnetic locks can help you compete with the large security companies. At the same time, your existing commercial accounts can now use your services for their access needs as well.

This product review section displays only an overview of the products currently made available to you. Look carefully through this section and request more information on those items which interest you.

It is also important to remember that many of the manufacturers who make these products conduct training seminars to teach you how to install and service the products. Many of these seminars are free. Contact those companies in which you are interested to find out how you can be trained in the product line. They will be happy to help you.

Also, recall that the various distributors who sell these products can often be a valuable resource for installation and service information. It is clear that electronic locking has found its place in the market. Be sure not to let this profitable area of locksmithing pass you by.

Alarm Lock's Eagle Keypads

Alarm Lock Systems, Inc. announces that two new decorator-style backlit Eagle Keypads are now available. These full-featured, aesthetically-pleasing keypads, EGL4700RBL and EGL8000RBL, are compatible with Eagle 4700PLUS and the Up/Downloadable Eagle 4700DL, and the Eagle 8000 and Up/Downloadable Eagle 8000DL Controls, respectively.

Both attractive models feature backlit keys concealed by a privacy door, and a chameleon accent lens, which blends with every decor.



Circle 264 on Rapid Reply

ACSI Modification Minimizes Costs

Series 1500 U.L. listed lock modifications from Architectural Control Systems, Inc., enable distributors to minimize modification costs to cylindrical locks, mortise locks and exit devices.

ACSI modifications include: fail safe, fail secure control; electric latch retraction; request to exit switching; solenoid trim control; and monitoring capabilities.



Circle 265 on Rapid Reply

Chamberlain Garage Door Accessory

A new improved version of a convenient Chamberlain garage door opener accessory, the Keyless Entry, has been introduced by The Chamberlain Group, Inc.

The 1991 model Keyless Entry works in combination with new Chamberlain Smart Garage Door Openers® to allow a homeowner access to their garage without keys or a remote control transmitter. It is battery-powered, wireless and can be installed in only five minutes instead of the 30 minutes required to install the older, hard-wired model.



Circle 266 on Rapid Reply

Continental Instr.'s Catalog

Continental Instruments Corp. has published a completely revised multi-product catalog. The new 8-page full color catalog provides security professionals with a condensed description of each of Continental's wide range of systems, including the Card Access® and Cypher® Lock.



Circle 267 on Rapid Reply

CSI's Access Control Software

CSI Control Systems International has introduced a new patent pending System 90 software that does multi-user and multi-tasking on a DOS operating system.

Customers no longer have to purchase minicomputers or UNIX based systems to do true multi-user and multi-tasking functions. With Control Systems International's S/90 Access Control software they now have minicomputer power at a PC price.

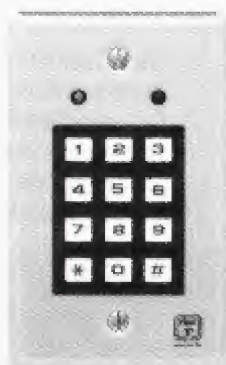


Circle 268 on Rapid Reply

Corby Introduces New Keypad

The new 6000 Series Programmable Keypad from Corby Industries, Inc. provides an array of sophisticated access control features. Operating one door for up to 36 people, it can be programmed, from the keypad, using a three to six digit length.

The programmable keypad provides up to four input conditions, supporting Request-To-Exit and more.



Circle 269 on Rapid Reply

Customline's Gate Operators

Customline electric gate operators are now equipped with state-of-the-art electronic circuits for ease of installation and service. They are compatible with most access devices and telephone systems. This compatibility enables you to include gate operators in the package you propose to your customers, thus expanding your market by securing the property, not just the house. Technical assistance is available upon request.



Circle 270 on Rapid Reply

Detex Presents Thriftlock™

Detex Corporation announces the introduction of new Thriftlock™ relating exit control locks to protect doors from unauthorized entry while allowing emergency exit from the inside. Unauthorized use sounds a high decibel, directional alarm which is audible even in high noise level industrial and commercial environments.

Compactly designed with exclusive microprocessor-based circuitry, the new Thriftlock™ or ECL-8000 series brings economy as well as solid state reliability and instantaneous response to exit control.



Circle 271 on Rapid Reply



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Door Systems Inc. Thin Door Locks

Of the seven models of the Digital Door Lock's 2000 series, the model 2000 readily adapts to thin door or cabinet installations. The 2200 can be installed for a surface (rim), or mortise strike application on doors from 1/16" to 2-3/16" thick. It features an outside turn knob, inside thumbturn, and two, four layer laminated stainless steel throw-bolts.



Circle 272 on Rapid Reply

DoorKing Phone Systems

DoorKing's Model 1814 Electronic Directory Telephone Entry System includes many extra features. Included in the standard cost of the 1814 are programmable entry codes, handsfree operation, remote programming, full duplex circuitry, remote relay activation, and more!

In addition, the system uses a single line LCD display with big 1/2" characters. This display, unlike multi-line displays, will not fade out in sunlight and does not require expensive sunscreens or cooling fans.



Circle 273 on Rapid Reply

DTS Technology's Axys Systems

Designed by a locksmith, the AXYS family access control systems are made to be "locksmith friendly." Easily mounted, Axys systems require only 3 simple connections. Together with the low price, Axys makes even the best mechanical access control lock obsolete.

Axys by DTS Technology, Inc. offers: easy installation and operation; five year unconditional guarantee; systems offering 2, 120 or 500 individual users; and field upgradability.



Circle 274 on Rapid Reply

DynaLock's Electric Deadbolt

DynaLock Corp. has designed their 1300 Series mortise electric deadbolt lock to be fail safe. The bolt extends only when power is applied and the lock is energized. Interruption of power causes the bolt to automatically spring retract. The compact design (a narrow 1-5/8" backset) allows for installation where most deadbolt locks cannot.



Circle 275 on Rapid Reply



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Essex Tech's KE-300

Essex Electronics Incorporated introduces their new KE-300 system to their keyless entry product line. The KE-300 is a coded access system for controlling electronic locking devices. The KE-300 is a microprocessor based system with nonvolatile memory that features up to 100 user codes, variable length codes, two SPDT dry contact relays and time zones.



Circle 276 on Rapid Reply

Handykey's Electric System

The Handykey® touch-free™ electronic key system is a simple and affordable access control solution for up to 200 users in all types of applications. The system includes a set of electronic keys, a reader for each door, and a door controller. A vandal resistant version of the reader is available.

Electronic keys carry a lifetime warranty.



Circle 277 on Rapid Reply

Locknetics 340 Magnet Lock

The new 340 Series Center Pull/Mortise Magnet Lock provides a security solution in electromagnetic locking. Its patent pending design conceals the locking mechanism for an aesthetically appealing installation, and it provides a center locking position at the same height as standard door locks.

Features include: mortise mounted magnetic lock in frame with 650 pounds holding force, concealed lock for aesthetic appeal, and an extruded architectural aluminum pull on the door.



Circle 278 on Rapid Reply

Marlok Company's Solitaire System 3

Marlok continues to advance the Solitaire product line with the introduction of System 3, a solution to the contradictory advantages of low cost, stand-alone access control hardware and the convenience of centralized management previously found only in the much more expensive hard-wired types of systems.

System 3 allows you to assign and monitor door access with your laptop computer. You can add, change, or delete view keys and view doors; set time zones, and print reports of key assignments, doors and activity.



Circle 279 on Rapid Reply

Microwave Sensors' Motion Sensor

The D7 motion sensor, originally manufactured for the automatic door industry, provides the access control installer with the most cost-effective and reliable request-to-exit device available.

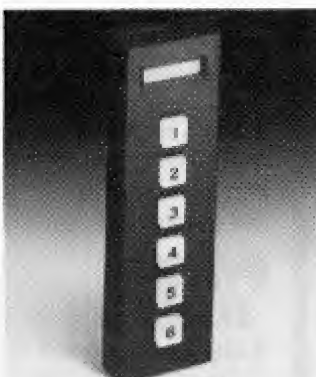
The D7 is available in either wide-angle or narrow-angle pattern selection and will recognize motion moving in any direction. Power requirements are 12 to 24 VAC or DC and the unit features form C relay contacts (dry, N.O. or N.C.).



Circle 280 on Rapid Reply

Nel-Tech's Stormpad™

Nel-Tech's Stormpad™ Model 6SP digital keypad offers the ultimate in all-weather access control. Suitable for the harshest outdoor or indoor environments with components hermetically sealed against rain, snow, or dirt. The tamper-resistant, heavy aluminum machined case is protected with a baked enamel finish. Lighted keys provide night illumination. Red/green indicator lights show locked status.



Circle 281 on Rapid Reply

OSI Security's Omnilock

OSI Security Devices has introduced Omnilock, a stand alone, battery operated, digital access control system. It installs directly onto the door and combines the reliability of a heavy duty cylindrical or mortise lockset with that of a high security electronics package.

Omnilock can control hundreds of users; generate an audit trail of past activity; and can be programmed to automatically unlock and relock, or lockout users at desired times and days of the week.



Circle 282 on Rapid Reply

Power Access' Door Opener

The Power Access door opener was specifically designed for handicapped accessibility.

The most unique feature about the opener is that the arm does not attach to the door. The arm (by means of a roller) rolls against the door to open it, and depends on a conventional manual door closer to shut the door. This is ideal for accessibility applications.



Circle 283 on Rapid Reply

Continued from page 42

Receptors Inc. GP1 Plus System

The Receptors Inc. (RI) GP1 Plus System is a powerful and flexible system designed for the low to medium access control market. The RI GP1 Plus System comes packaged with the new RI ACP8 (8 card reader panel) to provide a cost effective answer to the problems that confront the sophisticated end-user who requires more from an access control system than just to open and close a door.

The GP1 Plus will soon be available with Windows!

Rodann's Infrared Motion Detector

Rodann Electronics Mfg. Co. introduces its newest passive infrared motion detector. Designed to be used for automatic door operation, this unit features: three sensitivity settings, variable output holding times from seconds to minutes, curtain or horizontal fan detection area, and operates from 6 volts to 24 volts AC or DC.

The GPS-1 indoor sensor offers solid state output, easily interfaces with alarms, computers, audible indicators, and operates relays.

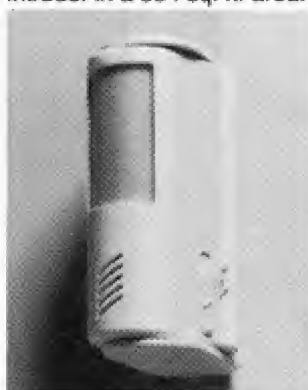


Circle 285 on Rapid Reply

New Hi-Tech STI Device

A compact, reliable, low-cost device that utilizes a harmless motion detector to sense infrared rays generated by body heat and sounds an alarm or chime is being announced by the Entry Alert Division of Safety Technology International, Inc. of Waterford, MI.

This newest addition to the STI Stopper Line is called Hazard Stopper. A triumph of technology, the unit's motion detector can "see" an intruder in a 354 sq. ft. area.



Circle 286 on Rapid Reply

SanBar's Access Control

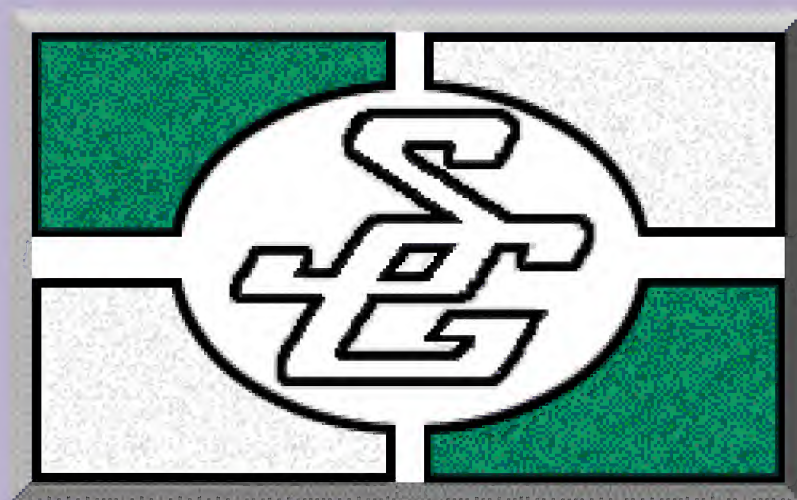
SanBar Technologies' ProxiKey System™ is very convenient to use. The self-contained system uses small, individually-coded proximity keys for access. It is well-suited to residential access applications, such as gate and door control, as well as commercial applications such as offices and computer rooms.

The ProxiKey reader installs quickly and accepts up to 32 user keys, which may be added or deleted from the reader at any time.



Circle 287 on Rapid Reply

Circle 284 on Rapid Reply



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Continued from page 44

Secura Key's Entracomp 27SA

The Entracomp 27SA is a self-contained card access control system, featuring the patent slotless Touch card reader. It is protected from vandalism and weather and is suitable for outdoor installations in temperature ranges from -40 degrees to +160 degrees F.

The Entracomp 27SA has non-volatile memory that controls up to 8000 card holders and can store up to 2000 time stamped transactions for later printout.



Circle 288 on Rapid Reply

Securitron Adds To Digital Family

Securitron announces a new addition to its digital entry family, the DK-15. The DK-15 is one of the most flexible code entry devices made and can operate any electric lock from 1 to 25 seconds release time. The DK-15 is packaged as a system with a separate CPU controller and an indoor keypad that fits comfortably into wall switch size box with 16' cable for easy connections.



Circle 289 on Rapid Reply

SDC's Access Control Systems

Three access control systems, designated SDC EntryCheck®, and a Hi-Tower® retrofit electro-mechanical lock are being exhibited by Security Door Controls (SDC).

EntryCheck is comprised of three sophisticated low-cost systems that are simple to install and easy to use.

The SDC R7550 HiTower is the first electronic door lock specifically designed to retrofit older high-rise buildings.



Circle 290 on Rapid Reply

Sentex's Infinity System

Sentex Systems' Infinity System is a flexible access control system combining telephone, card, and keypad entry with an electronic directory to display tenant names and codes.

Programming on-site is simple and is aided by prompts on the display. Additionally, the system can be completely programmed from a touchtone telephone using voice synthesized prompts and responses to guide programming, or it can be programmed from a remote location.



Circle 291 on Rapid Reply

Sentrol Inc.'s SureShot™ PIR

Sentrol, Inc. announces an addition to the popular SharpShooter™ passive infrared line. The new SureShot™ Model 6255 PIR offers a wide array of coverage patterns. With the SureShot's unique (patent pending) 3-D lens, one model provides either 360 degrees ceiling mount with 25' diameter coverage, or it can be mounted on the wall or corner for a standard 30' x 30' wide angle pattern.

Also, with every SureShot PIR comes easy-to-use masking plates that simply snap into place to create these added coverage patterns.



Circle 292 on Rapid Reply

Smart Access's Newest Version

Smart Access, Inc., a designer and manufacturer of electronic access control systems announced its newest version of their Multiple Door system (MDS Model SA-1606) Access Control. The MDS computer controlled card access system is unique in its simplicity to install, program, and operate.

The SA-1606 has microprocessor circuitry that recognizes individually coded cards and keypad inputs.



Circle 293 on Rapid Reply

Systematics Aids Low End Market

Products from Systematics, a Division of Cardkey Systems, address the security needs of the low end marketplace. The products offered include the SK2 Keypad Door Controller where access to a single door is required, supporting up to 10,000 unique ID numbers, the SC2 Single Door Access Controller controlling access for up to 1,000 cardholders and the S200 Door Control System which is expandable to control up to four door and 1,500 cardholders.

Self Adhesive From Tane Alarm

Tane Alarm Products self adhesive flange mount uses a blend of material that does not dry up and fall off in hot-humid or cold weather. The FM-106 also has a flange that is removable for narrow spaces. Tane's FM-106 uses a deactivated rhodium reed and an ALNICO V magnet to achieve an one inch gap.

Tane Alarm backs this product with a \$50 - 1 replacement warrantee and is U/L approved.



Circle 295 on Rapid Reply



by Jake Jakubowski

Hang A New Door!

"This one door replacement job netted me as much profit as sixteen car openings would have generated."

In *The National Locksmith* and other trade magazines, it is not unusual to read a complaint about the local police opening locked automobiles, the local hardware store re-keying and installing locks, and the home-centers selling locks cheaper than we, as locksmiths, can purchase them from our suppliers. These complaints are generally followed by the question, "What's left for me?" My answer to that question is an unequivocal: *plenty!*

I am not trying to say that these are problems that we should disregard. I am, however, stating that if these problems do exist in your particular area, *there are alternatives* that you can explore, to help you overcome any

income you may lose from what you perceive as unfair competition. This article will explore one of those alternatives.

Like many new locksmiths, car openings and basic re-keying jobs were my primary sources of income. As I began to solicit and acquire more commercial work, car openings began to figure less prominently in my earnings than they once had. Along with the increase in commercial accounts came more "see if you can fix that closer while you are here," or "do you think there is anything you can do with that hinge?" type comments. It was not long before we were doing complete door maintenance for the

same customers who we previously would only re-key. That, of course, increased our average gross per ticket for each job that we did.

Now, guess what happened to me on the way to a simple re-key job recently? The customer asked me to "check the closer on the back door" when I re-keyed the lock. When I opened the door, two things kept the door from falling to the ground: the door closer and the bottom hinge.

When I told the customer that the closer, panic bar and exit sign were in great shape, but that his door was dead, he wanted to know, "how soon (not, how much) can you get me a new door?" Rather than tell him to call a

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door company, I told him I would make a few calls and get back to him. I did, and quoted him a price to which he agreed.

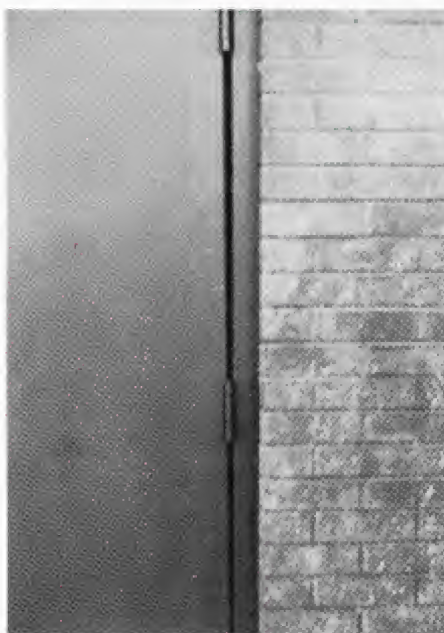
When I had called my favorite door supplier, Perry, he suggested that because of the use and abuse, that this door was subjected to I should use a Roton #780-210 x 80" continuous geared, full surface hinge, which is made by Hager Hinge, Inc. Following that recommendation, I ordered the door and the hinge.

Even though I believe that this installation *could* be handled by one man, an extra pair of hands and strong back, have a lot of merit. Besides, it is always nice to have someone around to blame in case something should go wrong. So, I called my good friend and fellow locksmith, Danny Campbell.

In photograph one, you will see the door hanging by the closer, and bottom hinge, just prior to Dan and I taking it completely down. The 4-1/2" frame hinge fillers were installed before replacing the door. Those same fillers were used to cover the hinge cut-outs on the door, too.

Photograph two, shows the Roton hinge with the leaves open and positioned against the face of the frame, approximately 1/16" below the level of the header rabbet (the bottom edge to the top of the frame cross-member), which locates the hinge evenly with the top edge of the door. Using the transfer punch provided we marked the drill sites for the screws to attach the hinge to the frame. Here, I deviated from the very thorough directions supplied by Roton, and used Molly Jack nuts, and 1/4" x 20 bolts to anchor the hinge. (See photograph 3.)

After placing the door in position and shimming it to the desired clearances (Roton suggests leaving an extra 1/32" at the top, latch side edge of the door to allow for settling when the shims are removed), Dan and I decided to use #10 x 1-1/2" TEC self-tapping screws to further hold the door in place while we drilled the 3/8" holes necessary for the sex bolts provided to attach the door leaf to the door. (See photograph 4.) Photograph five shows the hinge completely installed, except for the snap-on molding. The molding is a security cover and once installed, cannot, to my knowledge, be removed without destroying the molding. Photograph six shows the molding, and exterior hardware in place, with the door painted.



1. The door shown here has pulled away from the top and center hinge.



2. Hinge with door leaf, open position.

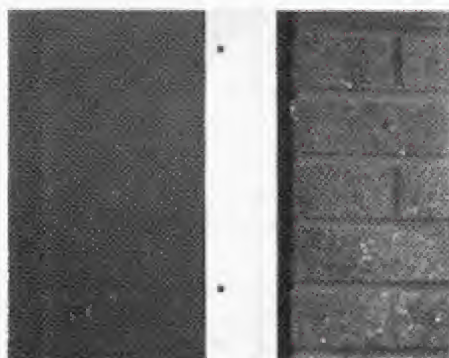


3. "Molly Jack Nuts" in place on frame.

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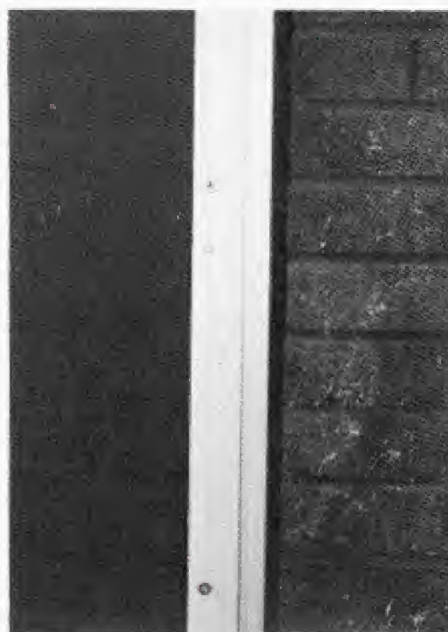
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4. Hinge leaf brought flush to door face and held with "TEC" screws.

If this had been a maintenance hinge replacement, the door could have been brought up tight to the hinge side of the frame to either allow more latch room, or compensate for a twisted or misaligned frame without affecting the operation of the Roton #780-210.

The complete installation took Danny and I about 4-1/2 hours (including the time it took to shoot the photographs). The door and hinge cost me just shy of \$400.00. If you figure my cost of material, labor for two men, and our travel time to the job-site, there was *more* net profit in this one job than we could have *grossed* on better than 16 (yes, you read it right, I said, *s-i-x-t-e-e*



5. Hinge completely installed, except for the security molding.

n) car openings! Here is an area where the police, home centers and hardware stores cannot compete with you!

You might want to argue that this is not really "locksmithing" and I would not dispute you. However, it is a service that I can...and am willing to perform for my customers. As I said earlier, it is an alternative ... an alternative that



6. Security molding in place and door painted (and me in the reflection).

keeps those sheekles coming in, which keeps my better half happy!

So, don't just stand there, do something! Start by looking around you each time you go to service one of your accounts, it might surprise you what you will see that you can fix. Then point out the problem to your customer and let him know that are willing to correct the problem and what it would cost. Even if they decide not to have it done right then, they will appreciate your interest and concern.

For more information on the full line of Roton continuous geared hinges, contact: Hager Hinge, Inc., 139 Victor St., St. Louis, MO 63104, (314) 772-4400. §



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by Dale Libby

Guarantee Your Service

"I always guarantee new locks and parts for a year, if certain conditions are met."

The question of safe warranties or guarantees often arises after I have worked on a safe. It is a good question from an informed customer. How I handle each customer differs somewhat, but I always stay between certain guidelines. How the customer treats and talks to me will determine (sometimes) how I treat and give him service. Many trades are alike in this practice.

I am a good craftsman and cracksman, and I take special pride in my work, circumstances permitting. There are certain safe jobs that I will not guarantee because of age or prior condition of the safe. I always guarantee new locks and parts for a year, if certain conditions are met. These are the conditions that I will now discuss.

First, let's talk about new parts. When a safe or chest requires a new Group II lock and I can retrofit one from stock, then there is a 1 year guarantee on all parts and labor (with exclusions, of course). New dials and rings also have this guarantee because if the lock is installed correctly and carefully, not much can go wrong with regular use of the unit.

This is true of new safe doors and parts ordered from specific manufacturers. Usually the manufacturer will work with you if you or the customer has trouble unrelated to poor installation.

If, after a job, you recommend a new lock and the customer does not go for it due to economic reasons, then I refuse to guarantee the used lock that was on the safe. I give the customer the option and explain it in detail. Usually, he will go for a new safe combination lock for the promise of trouble-free operation that the new lock offers.

The trouble with guarantees is with the service portion of your repairs. How do you guarantee your services in

relation to the prices you charge, and to repeat trip and service calls? There are many thoughts on this, and I will explore some of them with you.

Let me say that none of these procedures is scribbled on stone, so sometimes I am not as consistent as others. There are times that I am wrong, and when that happens, I always fix the problem, no questions asked.

What protects us from unscrupulous call backs to repair problems that may have been caused by others, or by the patrons themselves? The answer is the all encompassing "Exclusion."

Excusatory Notices. After working on, opening, repairing, and servicing a safe or chest, I have a 10 minute talk with the customer. Part of this is the explanation of the combination, but also the explanation and interpretation of the "Exclusions." The main exclusion other than "abuse" is having someone else work on the safe.

I guarantee *my own work*, not someone else's. One may ask how I know if someone else worked on the safe. There are some give-aways. One is the change key hole rounded out by the insertion of the wrong change key. Another is the lock or mechanism installed incorrectly. These are obvious faults and easy to diagnose. How do we know if someone else has changed the combination in the interim, however.

First, I do not keep a record of my customer's combination numbers. This is a good practice, and I recommend it strongly. There is no liability if your copy of a combination is lost or stolen. If you do not have one, then there is no need to worry about losing it. Also, then you can charge a customer to open his safe if he mislays his copy of the numbers. The customer is told of this non-copy practice in advance, so there are no questions down the line

about "... would you give me your copy of the combination, I have lost mine?"

Proving that the combination has not been changed is simple. When I give the customer the combination to the safe, I write it on the back of my card. I then tell him that this very card is the guarantee to the safe. Not a copy, not a fax, not a Xerox, but this very card.

The reason for this is simple. If the card has been altered, the numbers scratched out and new numbers added, or the card is not available, then there is a good chance that the combination has been changed. I do not tell the customer this, but it is a silent check on the original combination status.

If the combination has been changed, then all guarantees are off. Although I do not have a formula for changing the combination, I usually format the combination to use a low, mid range number, and a high number in some random order. I do not use birthdays unless the customer specifies such.

Thus, the numbers themselves are a clue. Sometimes, just to be sneaky and to thwart off non-professional manipulation attack, I will put either the first or second number in the drop-in area or forbidden zone. I hate when someone does this to me, and I carry on the anti-manipulation tradition. (ha ha!)

The other "Exclusion" that is all-encompassing is the "ABUSE" exclusion. What constitutes abuse? In fact, almost anything that causes the safe not to work properly. The customer does not understand this in general, so I spell it out for him with specifics. Here is a list of some "No-No's" that the customer must be aware of:

1. No slamming of the safe or chest door, either with the bolts in or out. With the bolts in, it tends to shake and



rattle the mechanism and inner parts causing loosening and mis-alignment. With the bolts out, it will bend and deform the bolts themselves and cause the door and hinges to bend.

2. No dropping of a floor safe head to the floor. This will cause deforming of the back plate or cover and cause inner adjustment to go out of whack.

3. Safe lock opening is a "one-handed" operation. I council against turning the dial with one hand while the other is on the opening lever or handle. Usually this non-dialing hand is rattling and shaking the lever to facilitate the opening. If the unit is working correctly, then the dialing hand can be used to open the safe after the dial has stopped and withdrawn the bolt. Using two hands to rattle open a safe is abuse. It puts too much pressure on the end of the combination lock bolt and can break (eventually) the lock. "Bolt-End Pressure is also caused by this.

4. The most common abuse of the safe lock mechanism is "spinning and whipping" the dial by the speed-dialing customer. I always ask the customer to open the safe after repairing or changing the combination. I then observe closely his dialing procedure. If he is "Speed Racer," I inform him of the charges for opening the safe after the combination lock mechanism breaks, and that he will void the guarantee if he continues this practice. If the lock has a torque adjustment on it, or if I can properly adjust the drive cam to create some drag on the mechanism, I will.

5. Lastly, if the customer has to use anything to hammer, twist, or turn any part of the safe itself while opening, the guarantee is void. This is the catch all. In effect, anything the customer does to open the safe that is unusual and destructive will void all guarantees.

The rate of my safe call backs is small. For the good public-relations that conscientious service gives, sometimes I will fix or repair minor problems with no charge, even if the difficulty was not a result of my services. Do not go out with the attitude that you will find some non-covered problem. Help the customer and show some compassion. It all will add up to more work in the future. Guarantee and Prosper! §



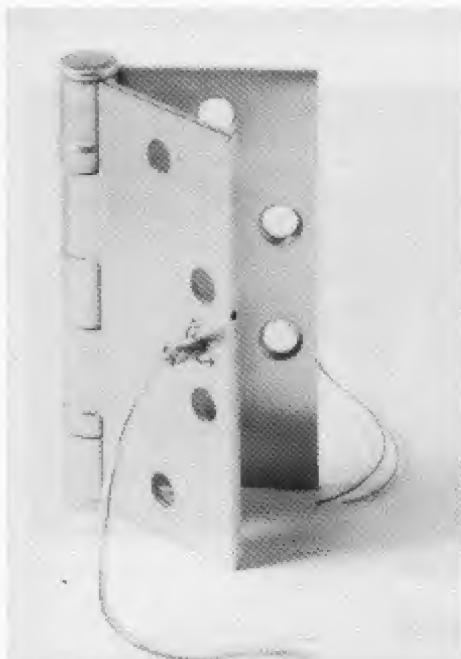
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Meet ASCI & HES

Architectural Control Systems, Inc.

As a full-service designer and manufacturer of high quality access control systems, Architectural Control Systems, Inc. (ACSI) offers electric hinge modifications for virtually any manufacturer's hinge, enabling customers to achieve substantial cost savings and delivery advantages.



The ACSI Electric Hinge.

Quality, versatility, delivery and price are the four points that ACSI focuses on. All ACSI modifications are UL listed. They have over 10 years experience and offer a full one year warranty. ACSI has the ability to modify all major manufacturers' hinges, offers fast delivery and provide substantial savings over manufacturers' costs.

Concealed electric through-wire (4 or 8 wire), electric monitoring, electric through-wire with monitoring (4 or 8 wire) and air transfer modification are all available through ACSI's Series 1100 hinge modification process. A substantial cost savings can be achieved by combining the Series 1100 hinge modification with ACSI Series 1500 lock modification.

ACSI maintains an inventory of over 1000 electric hinges (including Stanley, Hager and McKinney) in many weights, sizes and finishes to fulfill any customer's hinge requirement with same day delivery.

Models 1104 and 1108 (concealed electric through-wire) are for doors

which require low voltage current transfer. The Model 1110 (concealed electric monitor) is for doors which require electric monitoring. The ACSI 1110 uses a subminiature, snap action switch that is field adjustable to accommodate a wide range of door positions. No special adjusting tool is needed. A switch can be wired for open loop secure (OLS) or closed loop secure (CLS).

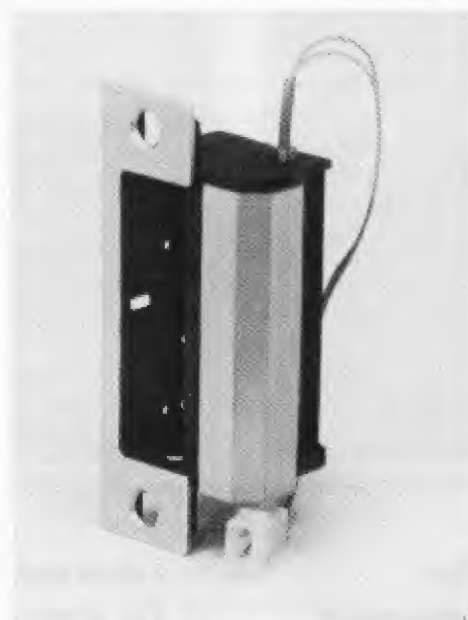
Models 1114 and 1118 (concealed electric through-wire and monitor) would be used on doors which require both low voltage current transfer and monitoring.

ACSI, a source for design, engineering and manufacturer of state-of-the-art access control systems for nationwide distribution, can also assist with information on electric locks, power supplies, Gemini Locking Systems and door controls.

**For FREE Information
Circle 402 on Rapid Reply**

Hanchett Entry Systems, Inc.

Hanchett Entry Systems, Inc. has been in the business of developing and manufacturing electric strikes and related products for more than 15 years. The H.E.S. approach has always been to produce innovative designs which fill significant voids in the industry, while providing high



H.E.S. model 1003

Continued on page 98

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by Bob Murray

Dungeons And Dragons

"My first stop of the day was deep in the dark, dank bowels of an old building in New York City."

Part I: Dungeons

My first stop of the day was deep in the dark, dank, and gloomy bowels of an old building in New York City. There was a vault door that needed to be opened during renovation. (See photograph 1.)



1. Vault door in the closed and locked position.

After hooking up my drop light, I examined the door and found it to be a plate type about 1/2" thick. I grasped the large handle grip, and while exerting pressure, I turned the dial and felt rubbing against the wheel pack and driver. (See photograph 2.) I deduced that it was a Hall "chute" type lock, which has a rectangular bar entering the lock case at 9 o'clock. The dial, while not extremely large, was cone-shaped with 130 evenly spaced graduations around the perimeter. It had been cast using a significant amount of metal, probably brass, and then plated. (See photograph 3.)



2. Close-up of the handle and dial.



3. Close-up of the dial showing the 130 numbers.



By carefully rotating the dial, I could discern three heavy wheels. Reversing direction showed me that they had solid flies, because the pick-up points were different in the opposite direction of turn. I find that these old locks can cause me a great deal of trouble sometimes. I'm not always sure of the measurements of the lock case, the thickness of the door, nor the diameter of the wheels. There is a large variety of mechanisms to consider when approaching an old piece of equipment like this one.

I always try to carry out some analysis and do some educated guessing. The ideal situation is to find an exact reference in my research. If I can't find one, then to aid my understanding, I attempt some manipulation of the lock. In this case, I facilitated this approach by attaching a long pointer made of threaded steel rod to the top of the handle ball. I then sharpened one end to a point and taped a piece of graph paper to the door. I made notes directly on the paper.

I found that the driver of the lock had false cuts around the edges. There also was an area of the driver that made no contact with the fence when pressure was applied via the handle. I wasn't making much headway in getting solid indications of increased handle movement. Increased movement toward the open position would usually identify a lead on one of the wheels. I felt I wasn't going anywhere with this method.

I decided to drill. I judged there would be little or no hardplate—there are times when hardplate will be in front of the lock on old units, but it can be cut using a pressure rig and modern carbide drill bits. The question was where to drill.

One option to consider is pulling off the dial in order to drill straight in underneath the dial area. This time it was out of the question, however. The dial would most likely be destroyed in such an attempt, and I didn't have any way to replace it. I decided to drill outside the dial ring at 9 o'clock and align the gates at the fence.

I used a #5 bit (less than 1/4") and angled in towards the lock case about 30 degrees from perpendicular. As I had hoped, there was no hard plate. By gently holding back on the drill machine with one hand, while exerting pressure forward with the other, I successfully penetrated the lock without damage to the internal parts. In fact, I was able to look in and see the end of the square bar where it contacted the driver!

The driver of the lock was in the front, and I knew the wheel pack had three tumblers. I can identify them by the order of the combination: the first wheel is farthest from the driver (the first number), the second wheel is next (in the middle), and the third wheel is closest to the driver (the third number).

When looking through the hole, I couldn't see the wheels behind the driver. When I rotated the driver, I could see the opening slot, or gate, come into line with the fence. I made a note of the number indicated on the dial.

To open the lock in such a situation, I must deduce the combination in reverse order. I do this by advancing the wheels to some arbitrary number, say #20. I return the dial, and thus the driver, to the opening number I've made note of. When I looked through the slot, I saw only the brass color of the wheel behind it. Since no gate appeared, I advanced that wheel by, say, 5 points (i.e. #25), and again returned the driver to opening.

When a gate was found in the third wheel, I made a note of the number and direction of turn, which is also important.

With solid flies, the direction is a necessary part of the combination. Now a similar procedure can be followed with the wheel behind the known one. Only more dialing is necessary, because both the driver and the third wheel block the view through to the second tumbler.

I eventually found a breakdown of the combination for all three numbers. This represents the gate location for each wheel, along with the direction of turn. Understanding the process is easier if you have some familiarity with the method of manipulation.

For instance, to decipher the first number of the combination of this lock, I selected some arbitrary starting number. I dialed 4 times left to the number, then 3 times right to "X" (the second number), 2 times left to "Y" (the third number), and finally once to "Z" (the opening index of the driver). If I hadn't seen the gate of that farthest wheel, I would have added 5 or so points and done the sequence over again. When I have a gate showing at the first wheel, I have the combination lock open.

That's how I opened this particular lock. I took hold of the handle, threw the boltwork into the open position and swung the door out. We found only a dead pigeon inside. It turned out to be a low-security vault for storage, with an air shaft through which the unlucky bird had found the way in, but not out.

When I removed the wheel pack, I was interested to learn that the driver had been "thinned" in a certain sector so that the fence would not contact it. (See photograph 4.) I felt maybe I could have manipulated this lock open if I had been



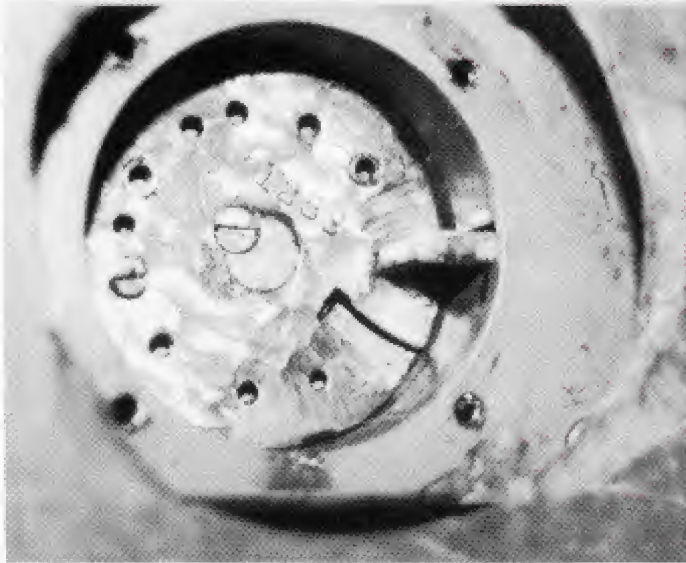
4. Lock with wheel pack removed, fence and driver in open position.

aware of that feature. I wondered if I could have used the thinned area as a sort of "gate," lining up the wheels and trying to find the minimum amount of turn of the dial in this region. If I had found reduced rotation and movement in that area, I'd have hoped for a lead on the wheel in question. (See photographs 5 and 6.)

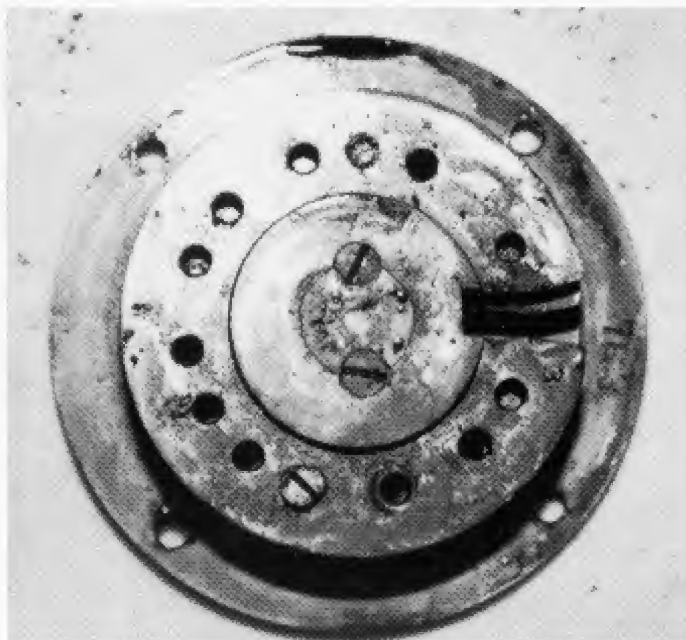
Anyhow, I was able to easily repair the hole, and I covered the area with putty for a smooth finish. Despite less than desirable working conditions, this had been an enjoyable job.

Continued on page 74

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5. Lock with wheel pack removed and fence jutting past the thinned sector of the driver.



6. View of wheel pack (or curb); note screw at bottom of photo, which is a solid fly, and large cutouts in wheels of gates.

Part II: Dragons

My second job of the day was at an above-ground, brightly lit, clean and modern drug store...only, this safe was to involve hardplate that was spitting fire.

It started out as a routine "safe will not open" call. My company had sold and installed the safe a few years back, so I knew it was a modern TL-30 plate safe. What I didn't know was what had happened to make the safe not open.

The manager remarked, when I arrived, that the lock had "disconnected." He proceeded to wrap his forefinger around the dial and jerk his arm upward, like he was starting a lawnmower.

Sure enough, there was no engagement between the driver and the wheels! After seeing the way he'd just treated the dial, I wasn't at all surprised. There would be no point in trying to dial this one open.

I took a different path of attack on this safe than that of the vault door. I pulled off the dial, which was easily replaceable, and marked off for the fence. I knew it was a

modern combination lock with the driver in the rear of the wheels. I believed there would be 1/4" or so of hardened steel to penetrate and get to the lock.

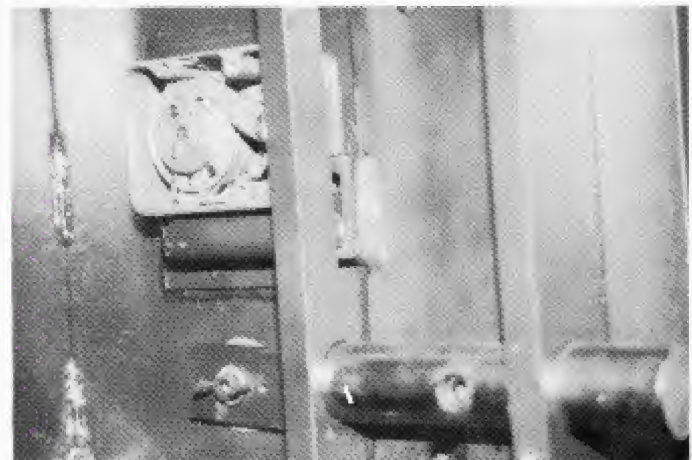
At first, using a high-speed bit, I cut through the outer mild steel of the door. A short distance into the door, I hit hard material. That was unexpected. And it was very hard, bumpy, and had an irregular surface, unlike tempered steel. I prepared to do battle.

I felt a twinge of doubt as the hard material ate my first bit for breakfast. With my second bit, it had a late lunch. Frustrated, I enlarged the hole through the mild steel, excavating down to the surface of this material. I went at it with a punch and heavy hammer.

I later learned that this material is welded into a cavity in the door along with carbide chips. I managed to break off a few chunks, and fish them out of the hole. Finally, I did crunch, punch, and drill my way past it. So much for an "easy afternoon, go home and rest" day.

Then, using another high-speed bit, I cut through the soft material of the lock case. My hole was situated right below the fence. Because the driver was in the rear, the first wheel was nearest the front of the lock, towards the front of the door, followed of course, by the second and third. Looking through the hole from the front, the gates were lined up in the proper sequence.

Unfortunately I couldn't move the wheels using the spindle, since there was no link between the two. I used an ice pick to move the first wheel around and put the gate into position under the fence. The second (middle) wheel presented a little more of a problem. I now had to work through the gate of the first wheel. What I did was to turn the second wheel until the change cam hole was visible, and

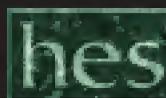


7. The backsheet and lock cover have been removed from the TL-30 safe, showing the modern style lock with the driver at the rear of the wheels.

release the core with a change key. The wheel was now free-spinning. I easily brought the second and third wheels' gates into line. With all gates positioned, I turned the spindle, got the hook to engage the driver, and retracted the lockbolt. The safe was opened.

When the backsheet and lock backcover were removed, the broken fly was apparent. I replaced the lock and dial with new ones after plugging the hole with hard pins and leftover carbide chips. Next time I may consider drilling from the side of the safe! (See photograph 7.)

The seemingly daunting task of opening a vault door had gone easily, while the more familiar modern safe held a few surprises. §



The Paper Shredder

by Joseph Locke

Electricity and I have understanding. I try to avoid installing alarms, and in return I don't get struck by lightning, or get called at 3 a.m., because an alarm is waking up the whole neighborhood.

I have always referred alarm installations, and every once in a while a con artist (who knows a sucker when he sees one) approaches me for some business. I like to help the underdog, mainly because I have always been one. A guy named Tony who worked as a manager for a fast food place asked me to give him some referrals, for his weekend alarm business, and in exchange he would give me free hamburgers.

Now you might think that is a raw deal, but I was known as "Wimpy" at a restaurant I used to work at... and not just because of my muscles. I would gladly pay anybody Tuesday for a hamburger today.

Tony seemed like a ball of fire... He was the type that knew he was going places, and you knew he would remember the "little people" that helped him toward his goal of world

domination.

Being a prize chump (and proud of it, Dude!), I believed in his Holy quest. I talked some of my best customers into using him, and they were happy at first with his quick service and cheap prices.

A little success seemed to go to Tony's head. He called me up after being in business a few weeks, and asked me to visit his corporate offices. I drove to one of the most expensive office complexes in the area, and Tony's offices were on the top floor with a view of the river. In order to see him I had to set my business card on a little tray that a uniformed servant presented to me in an imperious manner.

I felt very out of place in my rather plain 1940-issue pants and faded shirt with one or two strategically placed graphite stains.

"This is a long way from Burger King," I told him after his private secretary ushered me in. He was talking on two telephones at once, and motioned for me to have a seat.

"Boy!" I thought to myself. "Maybe

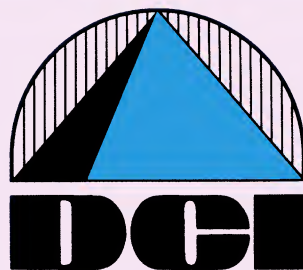
I should have gotten into electronics instead of working at pizza places when I was in school." I found it hard to believe that one guy could put in enough alarms to pay for such a large overhead, but Tony could even make you believe in the trickle down theory of economics.

"This is fabulous, Tony!" I exclaimed. "I didn't realize how much money is in alarm work!"

"Oh, I'm not through with these offices yet," he yawned. "There is a lot of re-decorating to do, with the hand painted Korean wallpaper and the Medici motif coming from Florence."

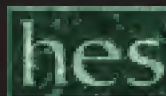
"Wow!" I gasped. "If I could understand what that means I would probably be very impressed!"

He shrugged off my remark and took me into the conference room to show me his hand-carved mahogany table and gold-leaf covered bust of Julius Caesar. Just then a delivery person interrupted us, and asked Tony where he wanted the new deluxe paper shredder. After Tony had him put it near the billion Megabyte computer network, I asked



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him what he needed a paper shredder for. He looked at me rather scornfully.

"When you have an important business like alarm installing, it makes you look more professional to have a paper shredding capability. If my competitor had a paper shredder and I didn't, where do you think my customers would go?"

It made sense when Tony said it, but somehow it loses some luster when repeated to "sane" individuals.

As we talked Tony's brother-in-law called us on "the inter-office communications network" which is a fancy term for intercom, but Tony liked the former description. His brother-in-law was just around the corner, and he could have whispered and we would have heard him, but Tony had very strict rules of procedure.

It was about this point in time that I started receiving phone calls from my customers that I had sent Tony to for him to put in alarms. The story was the same over and over. They had given him a big check to start the alarm installation, and they never saw him after that. I tried to get a hold of him, but his secretary kept saying he was in a meeting with some very important clients. After a few weeks, I finally drove over to his fancy office only to discover a sheriff trying to get a hold of Tony for some sort of fraud, and we both stared blankly at the "For Rent" sign on his window.

I had to do a lot of fast talking to my very upset customers, and thought that at least Tony was gone and wouldn't bother me anymore.

About a month later a locksmith friend called to say that he really thought a lot of Tony, and that my endorsement of him was really something.

"What endorsement?" I gasped.

"The one with your signature saying what an upstanding business operator Tony was."

I asked him how much Tony got him for, and we both cried for an hour.

Tony was one step ahead of my friend, and had skipped town leaving another paper shredder salesman holding the bag.

I happened to glance at the newspaper the other day and noticed a large announcement in the business section that "Tony Enterprises" had located their World Headquarters in our town, and that "paper shredder salesmen are welcome." §

ALOA Convention Coming Soon

The Associated Locksmiths of America Annual Convention promises to be *the* professional event for locksmiths in 1992. There is, of course, a trade show. There are currently 191 exhibiting companies, with a total of 400 booths, scheduled to have displays in the exhibit halls. New products will be featured, along with a tremendous variety of familiar tools and equipment. The Silent Auction will again be a highlight that all locksmiths will enjoy.

What makes the ALOA Convention *the* event, not just another trade show, are all the other professional and entertainment activities available to those attending. Classes and seminars will be offered throughout the convention. These classes will cover a wide variety of topics of interest to locksmiths. They include many technical subjects such as "Picking" and "Forensic Locksmithing." General business subjects, such as "Marketing and Sales" and "Computer Fundamentals," will also be offered. One of the most important educational opportunities, however, is provided free of charge by the locksmiths and other industry professionals attending the convention. This is, simply put, the opportunity to meet and talk with people, share ideas and experiences.

ALOA's Proficiency Registration Program will be offered during the convention. The PRP evaluation is scheduled for Sunday, July 26 from 1 to 5 p.m. June 1 is the deadline for registration for this evaluation, and there can be no exceptions made for late applications. Information concerning the Proficiency Registration Program is available from ALOA Headquarters.

And, as usual, there will also be time just to have fun. Tours of Baltimore and Washington D.C. have been arranged for attendees and their guests. The ALOA Open Golf Tournament, sponsored by Yale Security, Inc., will be held at the Turf Valley Country Club. Proceeds from this event will benefit the ALOA Scholarship Fund, so the fees are even tax deductible. The schedule gives you enough time to rest from the tournament before the ALOA Banquet, sponsored by Medeco Security Locks, which will be on Sunday, the 26th. This entertainment highlight will be held at the B&O

Railroad Museum. This unique museum features displays of antique locomotives and cars, rare tools and equipment and a working model railroad. Dining and dancing will be in the old roundhouse, formerly used to repair passenger cars. A traditional Baltimore Crab Feast will give you the

energy to keep on track until the whistle blows late that night!

As you can see, the ALOA convention is not just another trade show. It is a complete professional development event well worth attending. For additional information and registration materials, call the ALOA Headquarters at (214) 827-1701, FAX (214) 827-1810, or write to ALOA, 3003 Live Oak St., Dallas, TX 75204. Don't get left behind! §



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The Lighter Side

For Example...



by Sara Probasco

"What are you doing?"
"Updating information for my business seminars."

"Again? I thought you had finished with that long ago."

"You never finish! Every week, I come across some new things I want to share."

Snapping his newspaper open, his interest seemed to wander. "You can't include everything."

"Well, I don't see why not."

"Because the seminar is only eight hours long. That's why."

"You have a point."

Don went back to reading the morning news. Then he slowly lowered the paper to peer over the top of the pages at me.

"What kind of new things?"

"What?" I asked, by now involved in jotting down some new material.

"What kind of new things do you come across every week?"

"Oh, interesting ideas I pick up during the seminars, things I read about, things that happen at our shop."

"Like, what sort of things that happen at our shop?" Don was eyeing me suspiciously.

A mischievous twinkle flitted through my eyes, as I tried to keep a straight face. "Just typical little goings-on," I replied.

"For example...?" By now, Don had folded his newspaper and laid it aside, giving his undivided attention to my impending answer.

I rolled my pencil back and forth between my fingers and pursed my lips. "Oh, I don't know," I said.

"Yes, you do. You've been writing things down." He pointed to the little pad before me on the table. "What 'typical little goings-on' are you planning to reveal to the world this

time?"

"Well, I was thinking of sharing something about what can happen when you hit the wrong button on the computer. Remember when you wiped out nine months of bookkeeping entries?"

Don paled noticeably.

"At least that experience taught you to make back-ups."

"What else do you plan to reveal?"

"Well, I was thinking about how important it is to get accurate information over the phone before you go out on a service call. I could illustrate that point by telling them how you spent thirty minutes trying to find a lock-out in the K-Mart parking lot, when the customer was waiting for you at WalMart." I sniggered.

"You wouldn't!"

"I thought it was funny," I replied, unable to contain a giggle. "Remember how you came storming back into the shop grumbling about people who call for help and aren't there when you arrive? And all the time, the guy was mad as hops over at the other parking lot, because he'd been waiting thirty minutes for you to get there?"

"It wasn't funny."

"No. You're right." I sobered a bit. "It really wasn't." A laugh escaped, despite my better intentions. "But it sure seems humorous, now. I'll never forget the look on your face when you discovered your mistake."

Don wasn't laughing.

"Also," I continued, "I think there's a lesson to be learned from your experiences regarding mistaken identity."

The blank look on Don's face told me he didn't know what I meant.

"Don't you remember?" I asked. "That first month after we moved here and opened our store—when the former governor drove up in his old Jeep, straight from the ranch, dressed in grungy work clothes, and bought a dozen keyed-alike padlocks. You had no idea who he was. Remember?"

"My word, woman! Is nothing

sacred?"

"I thought it was funny— especially when you called the bank to see if his check was good before you would accept it, and they nearly swallowed the telephone, laughing."

"You know, ever since you started conducting those seminars all over the country, it's been like living with The National Inquisitor, around here. I thought your topic was 'The Business of Locksmithing,' not 'True Confessions.' You need to stick to facts about business and forget all this personal stuff."

"My course is rooted in solid business practices, but it wouldn't be nearly as interesting without the personal touch. Let's face it: real-life examples are more effective than impersonal text book cases. Besides, it's a proven fact: people have a tendency to remember humorous anecdotes."

"That's what I'm afraid of. Do you have to broadcast all of my foul-ups?"

"I don't. I only tell them the good stuff. After all, the seminar is only eight hours long," I quipped.

Don wasn't smiling.

I decided to drop the matter, before I got myself into even hotter water.

We both turned to reading various sections of the morning paper, and I thought the matter had been dropped, when Don spoke quietly from behind the outstretched pages of the sports section. "Well, I'm glad of one thing," he said.

"Oh? What's that?" I innocently waded in.

"At least I wasn't the one who went running out into the parking lot thinking I'd retrieve that woman's key from the jaws of a reptile, when she complained that it was stuck in her turtle. She thought you were nuts."

He had me there.

"Well," I responded, "I guess that was my day to illustrate the point."

"What point is that?"

"Everybody has some purpose in life, if only to serve as a bad example." §

Beginner's Corner

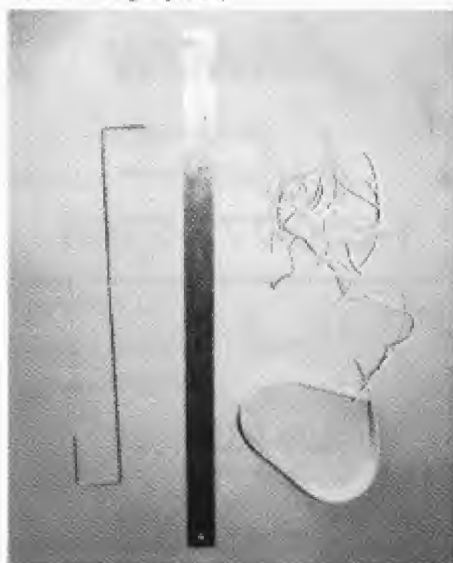
Car Opening



by Eugene Gentry

How many different ways can you gain entry into one automobile? To find all the answers, I would recommend reading expert Shirl Schamp's books on car openings. The books will show you how to open hundreds of different cars.

In this article, however, I would like to tell the beginners how to gain entry into two vehicles: a 1978 Dodge Van and a 1984 Nissan pickup. After studying the vehicles I found six different ways to open the van, and four ways to open the pickup. Entry methods used were opening the wing window, picking, impressioning, using the Slim Jim, S tool, and Lemon Pop. (See Photograph 1.)

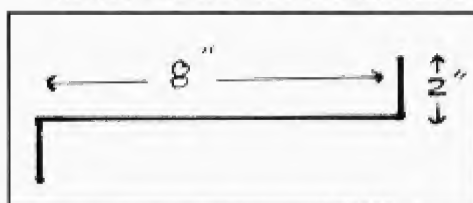


1. The lift tool, Slim Jim and Lemon pop tool.

Method 1: The 1978 Dodge van has a wing window secured by a handle which has a push button on the end that locks when the handle is closed. To gain entry through this window, I used two tools that I picked up at the hardware store. These look

like miniature nail pullers and might have been what they were intended for. You can purchase ready made wing window tools, or make your own from a stiff wire. (See illustration 2.)

Insert one tool between the metal



2. Home-made window wing tool.

on the glass and the rubber on the door, just in front of the handle, then push and turn until tip of tool is on the button. Insert other tool beside the first tool. Now as you pull on the first tool to push in the button, use the other tool to move the handle to the open position.

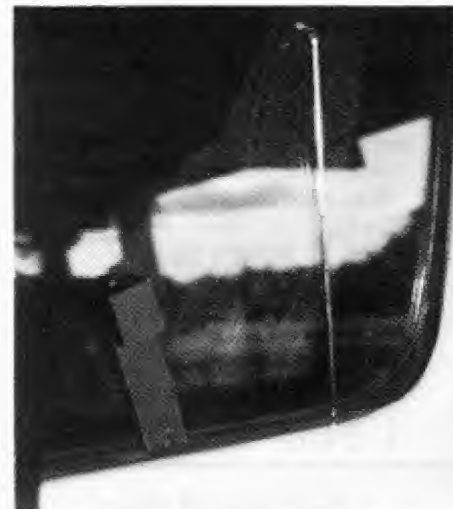
Method 2: The method used here is picking the lock open. Use a dust cover tool to hold open the dust cover. If you use a pick gun, enter the keyway straight in. This lock picks easily with the pick gun or with a raking pick. The drivers door lock cylinder opens counter clockwise and the passenger door lock cylinder opens clockwise.

Method 3: Impressioning will work to open and make a new key if the keys have been lost. Use key blank Ilco P1770 or Taylor Y152. This key has five cuts and the marks show up well on the key blank. If you can impression well it will be valuable to your career.

Method 4: The Slim Jim can be used to open this van. I worked on the passenger side to gain entry. If you will use a thin metal like a putty knife to separate the rubber trim from the window, it will make a start for the wedge. Insert the wedge, pushing it down to make an opening for the Jim. Insert the Slim Jim about two inches in front of the lock button, then go down about 10 inches, angling about 30 degrees, and aiming for the lock.

Pull the top of Jim outward so the end angles toward the outside of the door about 1/2 to 1 inch. When you feel a connection, push down on the Jim. This will push the lock button up to an open.

Method 5: Entry can be obtained by using the Lift tool or "S" tool to lift the lock button. (See photograph 3.) The wedge is used here on the window to make an opening large enough for the tool. Insert the tool about 2 inches in front of the lock button. Push it down until it clears the bottom of the window, then turn it toward the inside of the car until the end is under the button. An upward pull will push the button up and open the car.



3. The lift tool in a 1978 Dodge van.

Method 6: The tool I have is called a Lemon Pop, made up of a plastic strip with a cord attached to the end. (See photograph 4.) For this opening, I pried the top of the door out slightly and held it out with a wedge. This allowed for a give, at the side of the door at the point of entry, near the button. The end of the plastic strip, where the cord is attached, is pushed between the rubber molding and the door, near the inside lock button. A little soap and water mix will lubricate the rubber.

The cord is used to guide the strip

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Beginner's Corner

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4. Lemon pop used on lock button.

toward the button. When the cord is above the button, drop the plastic strip until the cord is on the lift button. Pull on both the cord and the plastic strip and the button will pop up. In case of a smooth side lock button, wrap the cord around twice it so it will not slip off.

The 1984 Nissan pickup does not have a wing window, but some of the same procedures for opening the Dodge van can be used on this pickup. (See photograph 5.)



5. The inside of a Dodge van with the Lemon pop cord wrapped around the lock button.

Method 1: Do not use a pickgun to pick open this lock. Some of the foreign cars have locks with plastic parts that can be damaged with the pickgun. To pick open this Nissan, I used the rake which worked good for me. This lock has a double sided key, with both sides cut the same. By raking the top of the cylinder, the lock will open. Driver's door opens counter clockwise and passenger door opens clockwise.

Method 2: This lock can be impressioned, but because of plastic parts, you should use care so you do not damage the wafers. This key has eight cuts. Use key blank Ilco DA 25

or Taylor X 123.

Method 3: The rubber molding on the side windows is very tight. Use a thin metal to pull out rubber, then insert a wedge to make a space for the Slim Jim. Push down the Jim about 12 inches, angling toward the door lock. When you feel a contact, pull upward on the Jim. This will pop the lock button up.

Method 4: The Lemon Pop can be used on this vehicle, as it can on many vehicles that have the pull up lock button. Pry out on the top of the door using a wedge or piece of wood to hold it slightly ajar. Insert the Lemon Pop between the rubber molding and the door, with the cord going inside the door. Use the cord to maneuver the plastic strip over the lock button. Drop the plastic strip with the cord around the button. Pull back and up on the cord and plastic strip and the button will pop up.

So, when you have a car to open, look for all the different ways to gain entry. If the first effort fails, then you have an alternative. §

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